

THE
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& BUILDING NEWS

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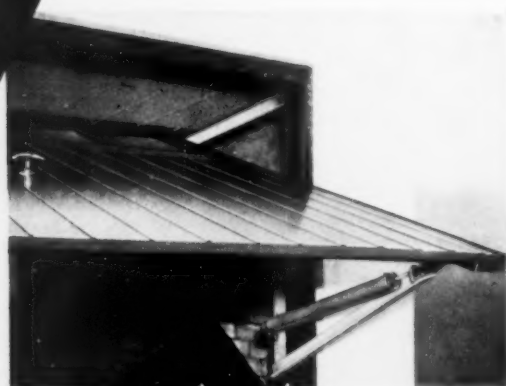
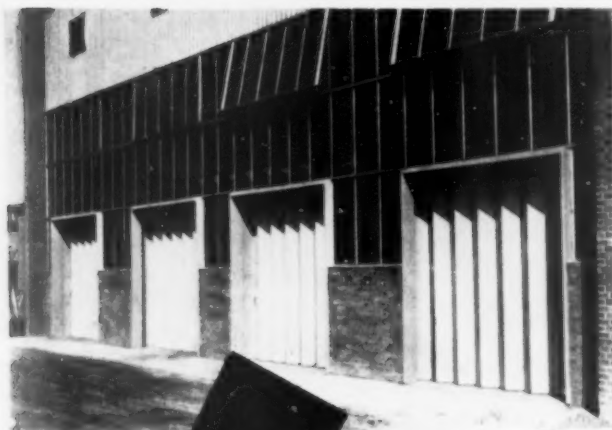
NO. 7

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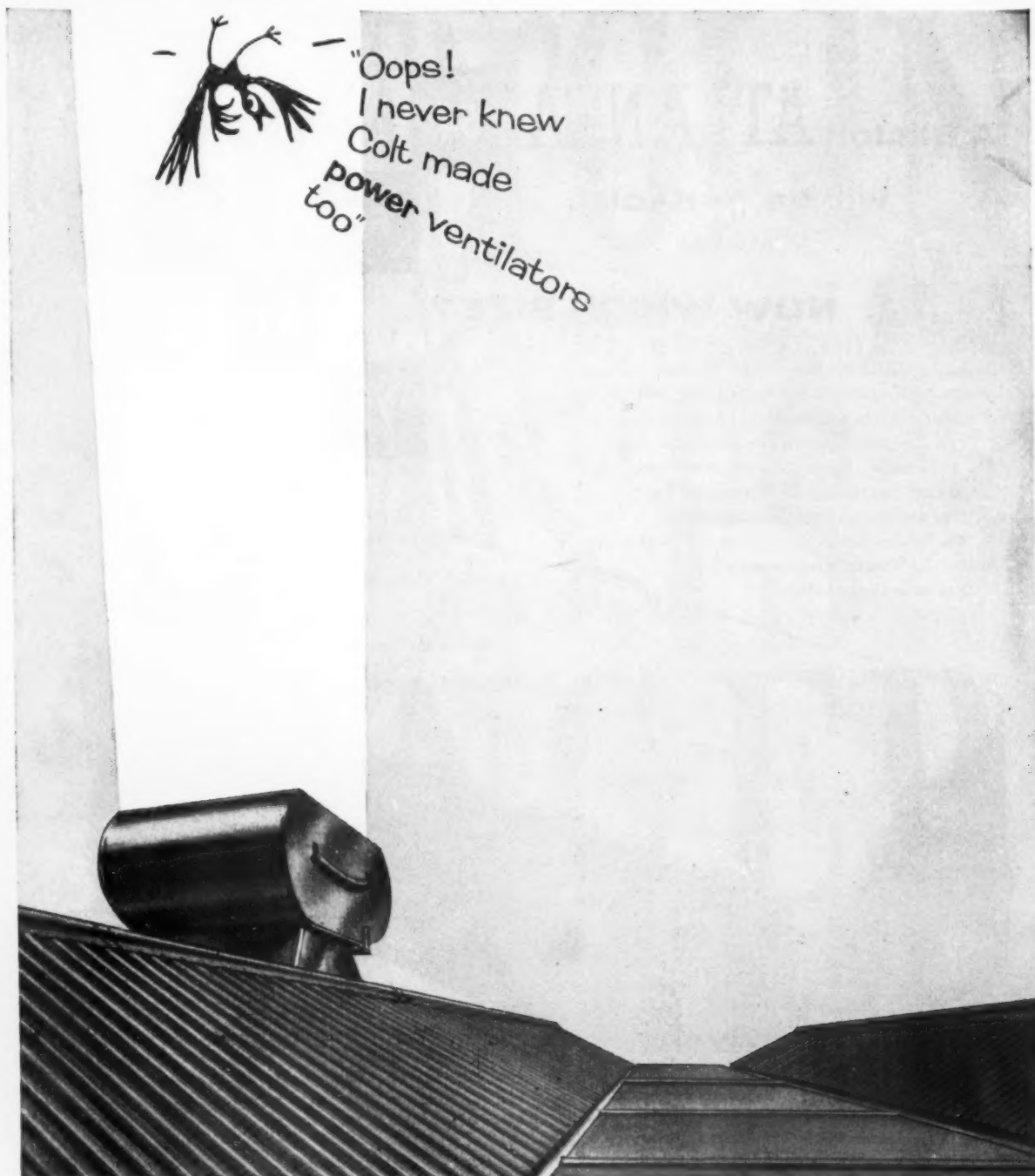
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Flats in Finchley, where Tretolin was used on concrete balconies.
Architects : Oscar Gurry & Partners.

HERE AT LAST...

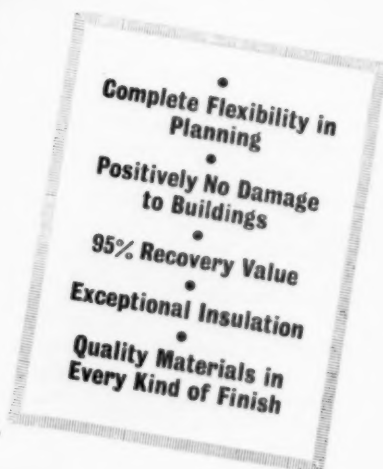
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New buildings for the Steel and Tinplate Divisions of The Steel Company of Wales Limited—Abbey Works at Port Talbot and Velindre Works at Swansea.

Architects:

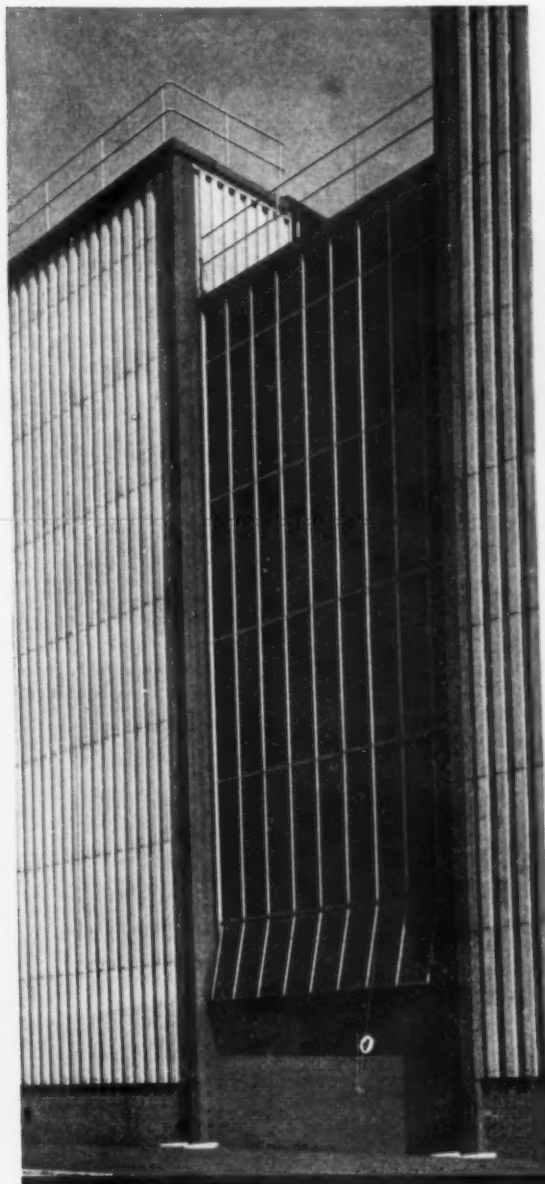
Sir Percy Thomas & Son, Cardiff, Swansea and Shrewsbury.

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The Steel Company of Wales works at Port Talbot and Swansea are among the best known post-war industrial developments.

What is perhaps less well known is the part aluminium played in their construction. Williams & Williams ALUMINEX PATENT GLAZING was chosen for its speed of erection, favourable balance between prime and maintenance costs, and the ease with which broken panes of glass can be replaced at any time.



Close-up of Aluminex Sidewall Glazing on the west side of Velindre Works.

Continuous Aluminex Sidewall Glazing on the east side of the shipping bay, Velindre Works. The roofs of both Velindre and Abbey Works are "high-low" constructed—the transverse clerestories are fitted with Aluminex continuous opening lights for extra daylight and ventilation.

Among the Aluminex decklights in the City of Steel are these on the general stores building where they provide overhead daylight at the lower levels, supplementing the general lighting of the main building by Aluminex sidewall glazing.



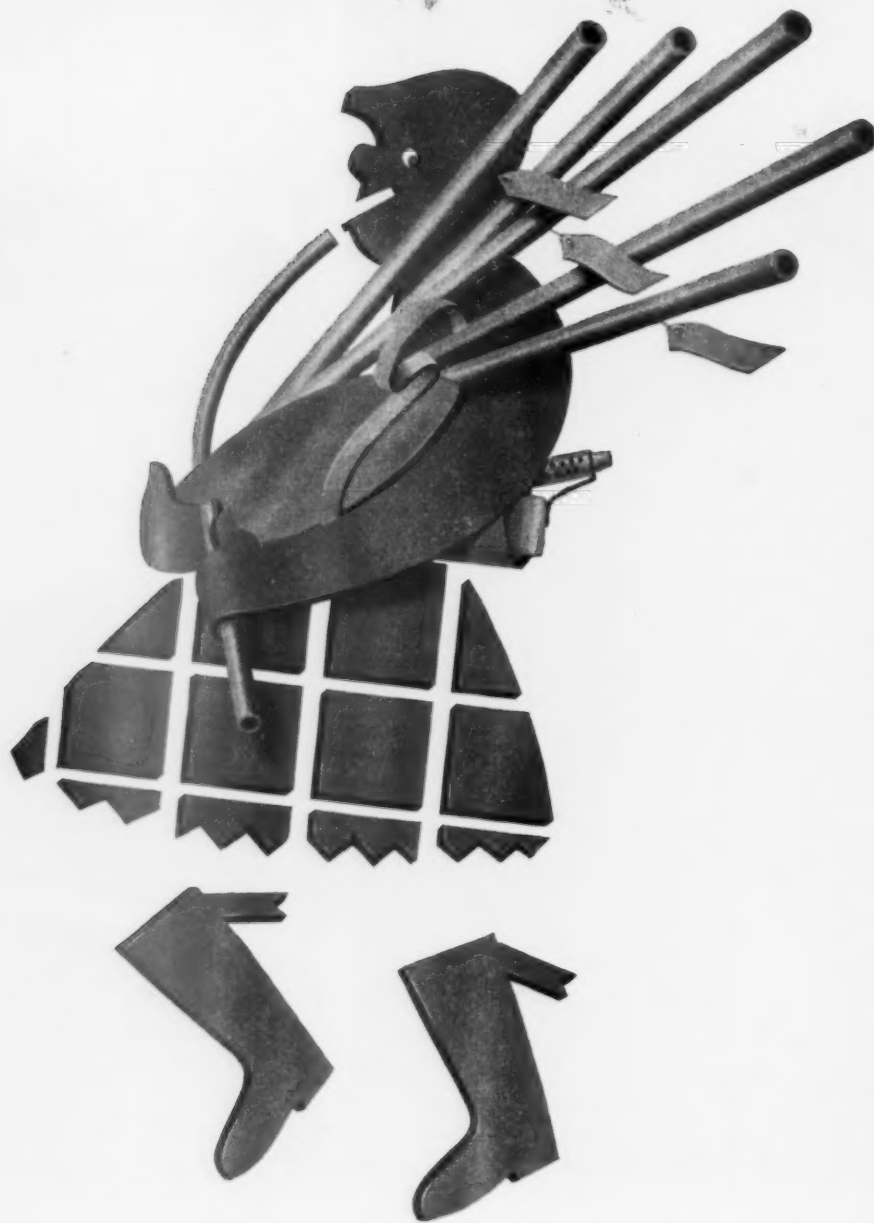
So at both Abbey and Velindre Works, the ribbed steel wall sheeting is married to great expanses of patent glazing—
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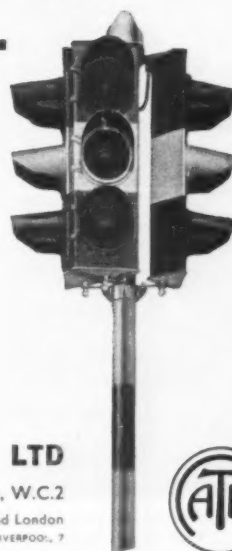
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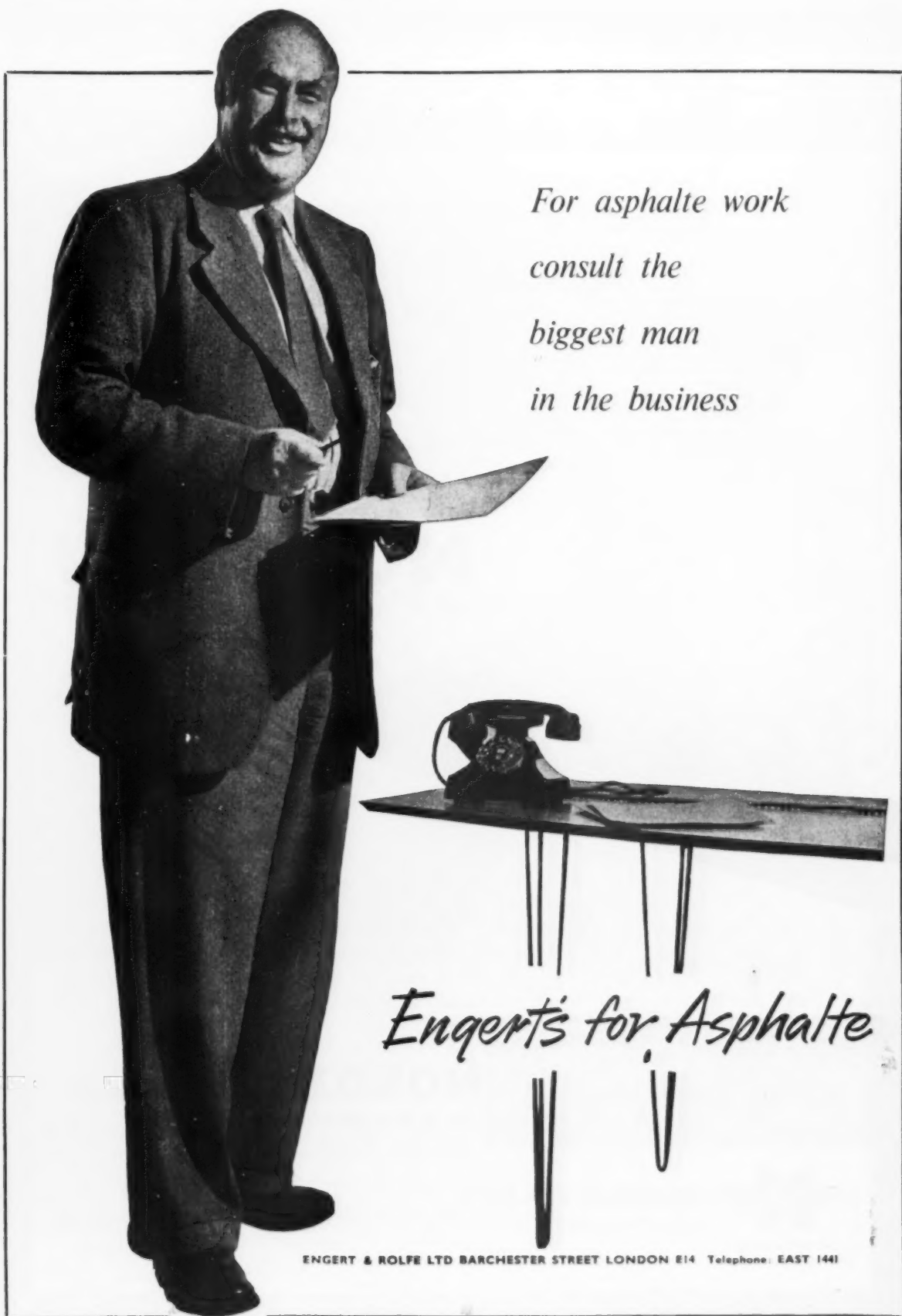
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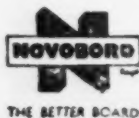
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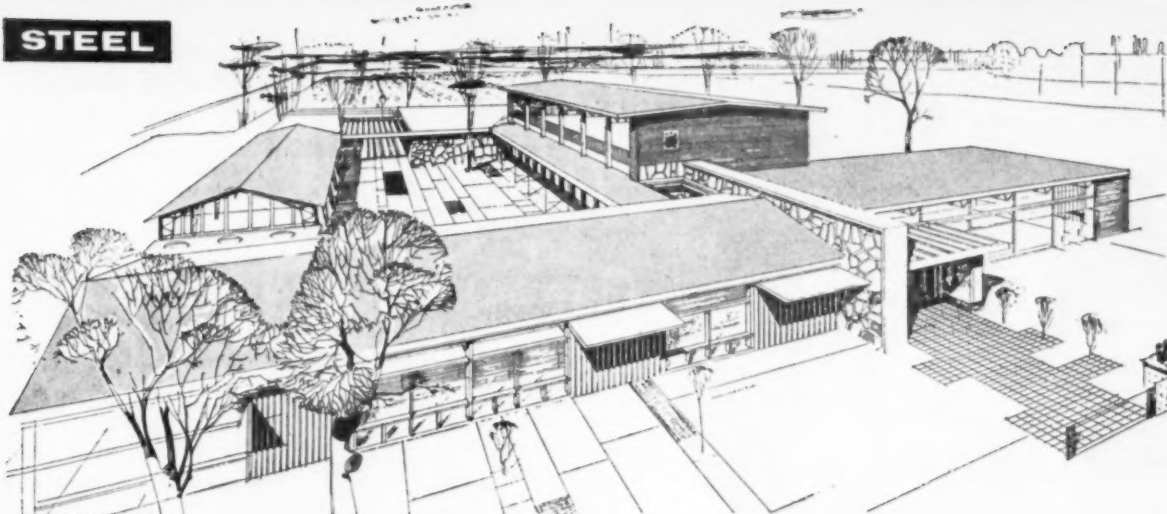


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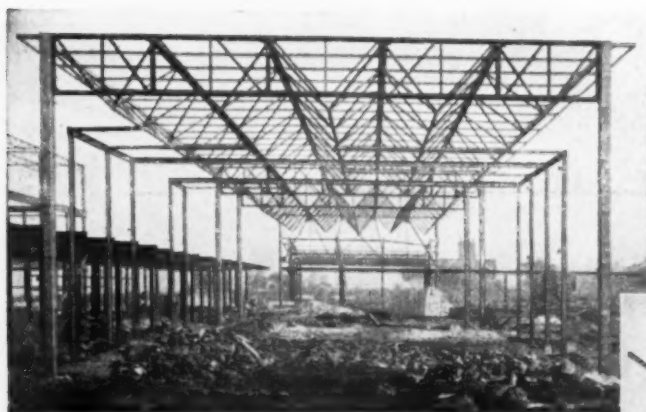
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SCHOOLS

STEEL

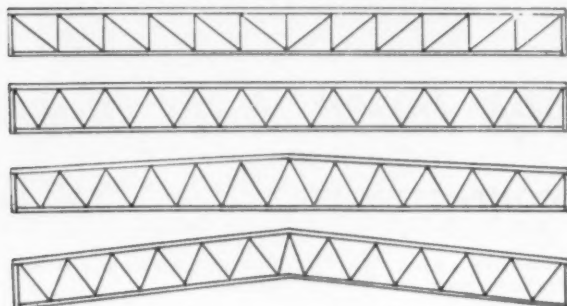


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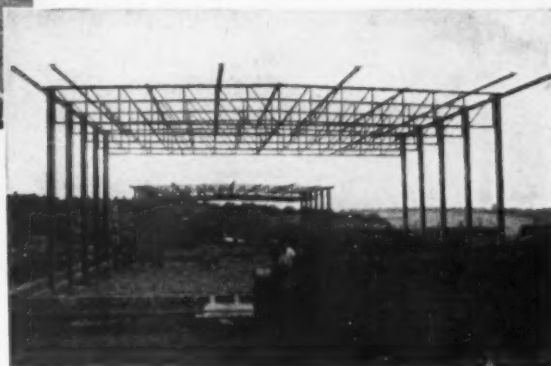
Above: Gravesend Gordon School for Kent County Council. Architect Elie Mayorcas, F.R.I.B.A. Right: Lewsey Road and Ashcroft Schools, Borough of Luton. Architect M. H. G. Blackman, A.R.I.B.A.

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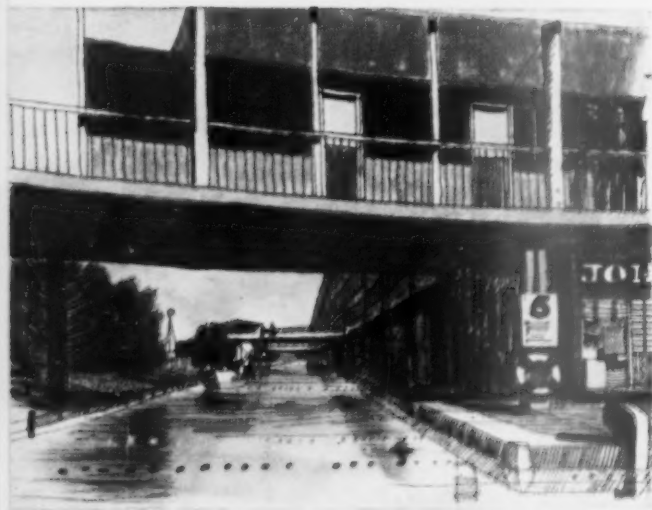
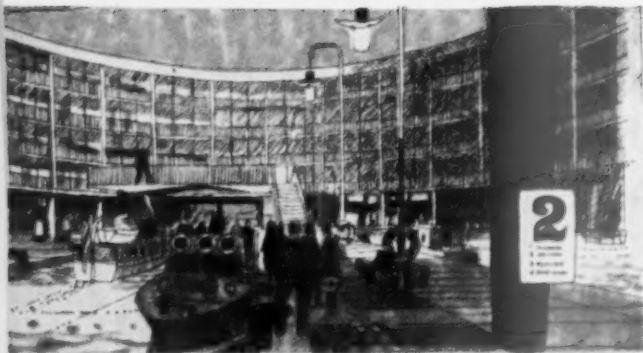
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RIGHT: An open market.

TOP LEFT: One of the fifteen water-bus stops.

MIDDLE LEFT: The view along a canal from a water-bus stop.

LOWER LEFT: A place to relax, with open-air cafe.



Motopia is designed to overcome the unhappy effects of congestion by placing the roads upon continuous terraces, built in great squares which provide accommodation for 30,000 people. This is the fourth post-war study prepared by the Glass Age Development Committee, consisting of Jellicoe, Ballantyne and Coleridge, F/A.R.I.B.A., Edward D. Mills, F.R.I.B.A. and Ove Arup and Partners, and convened by Pilkington Brothers Limited.

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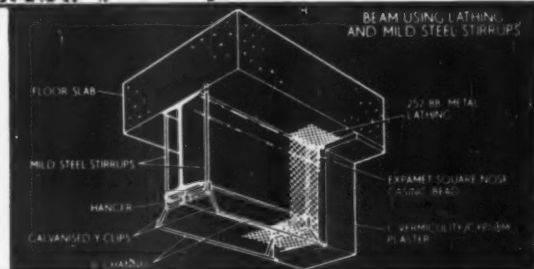
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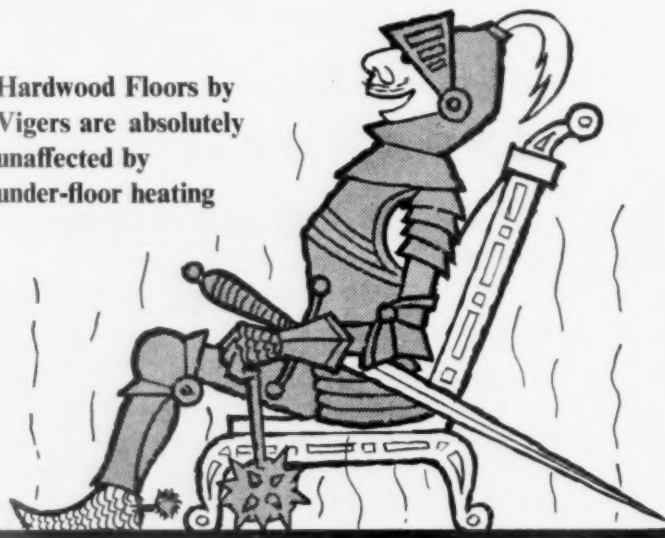
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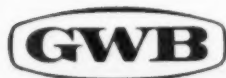
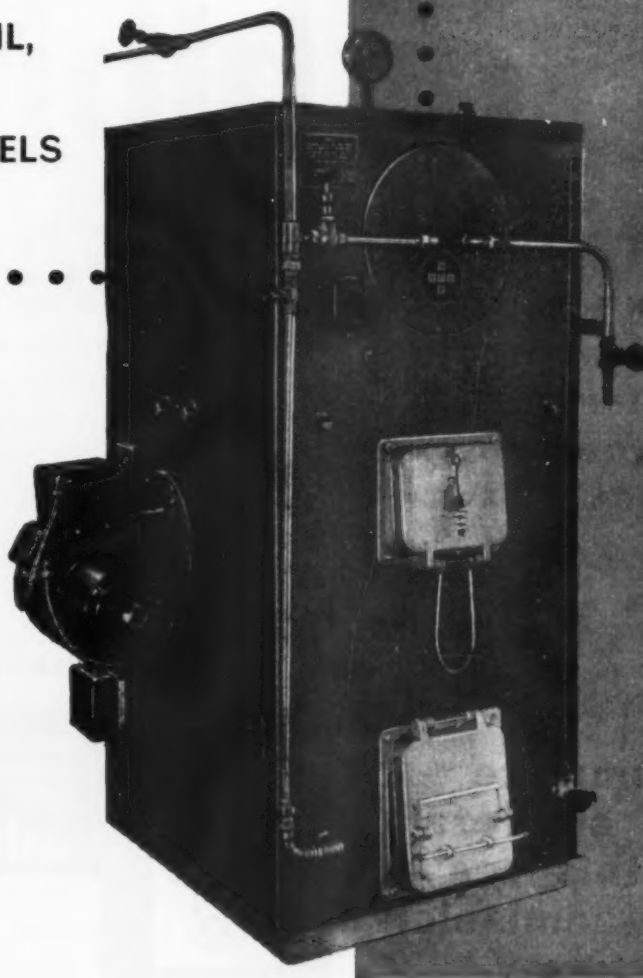
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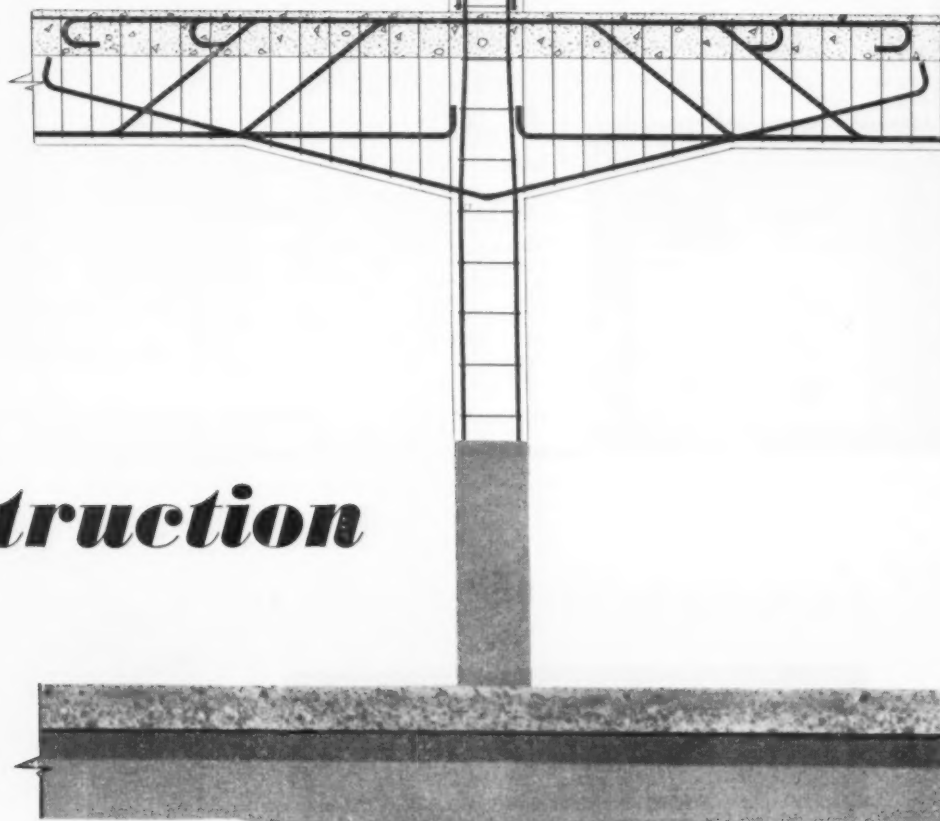
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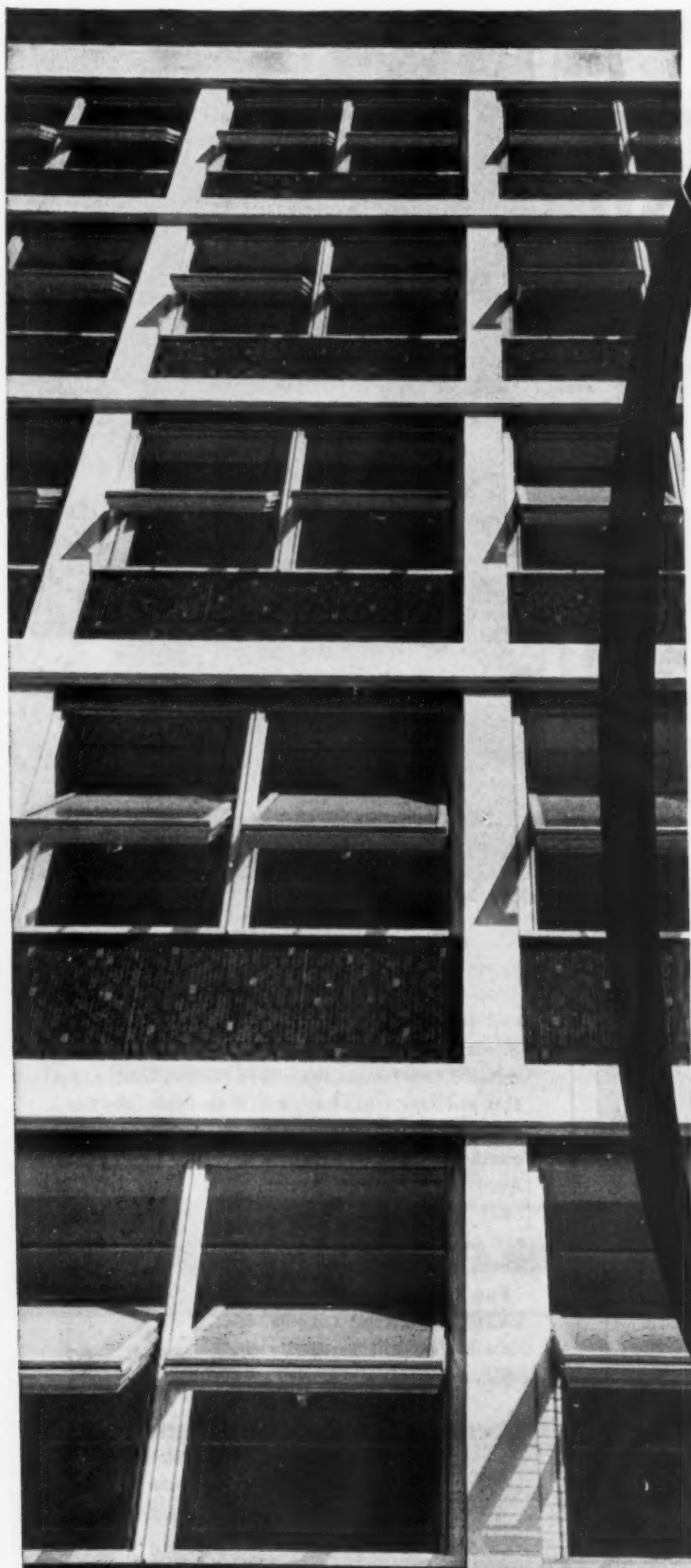
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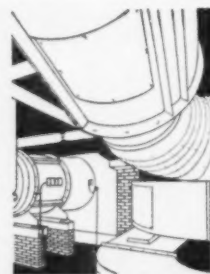


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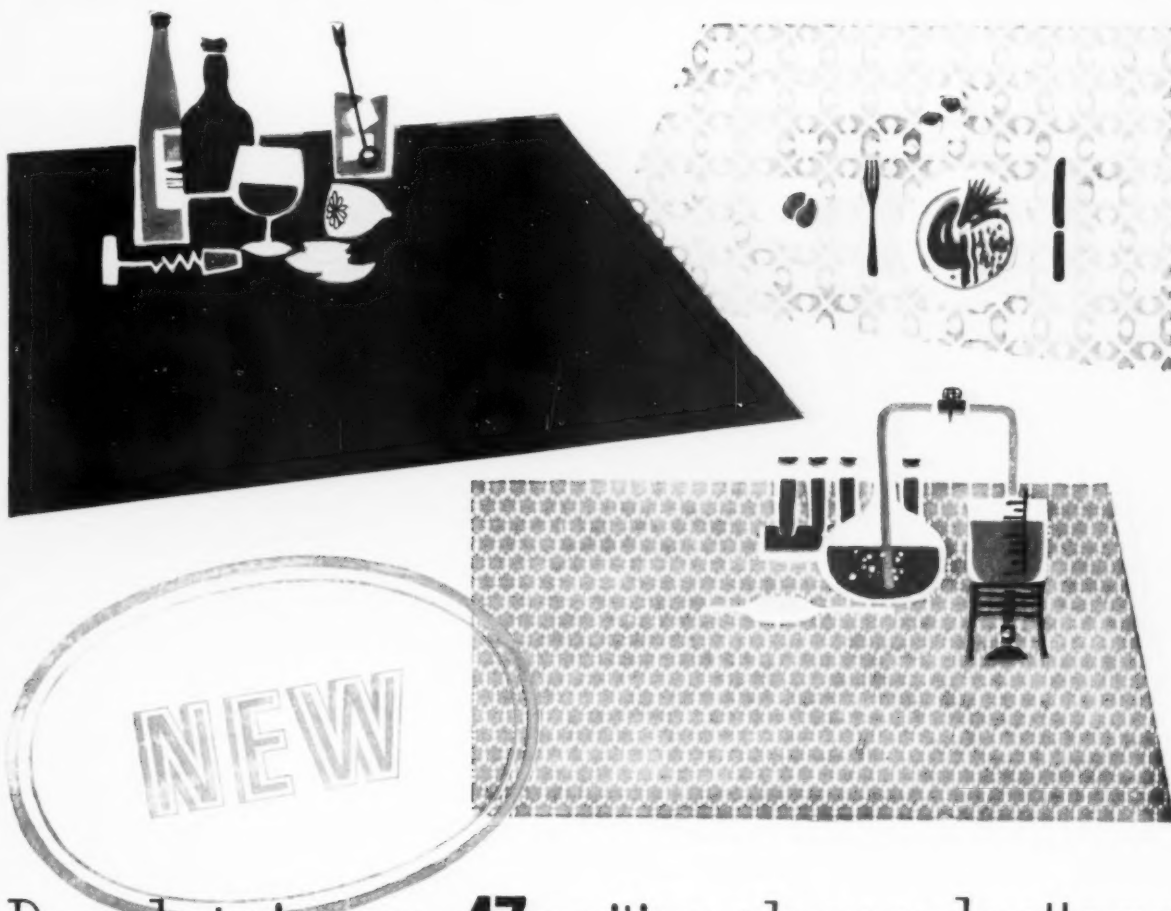
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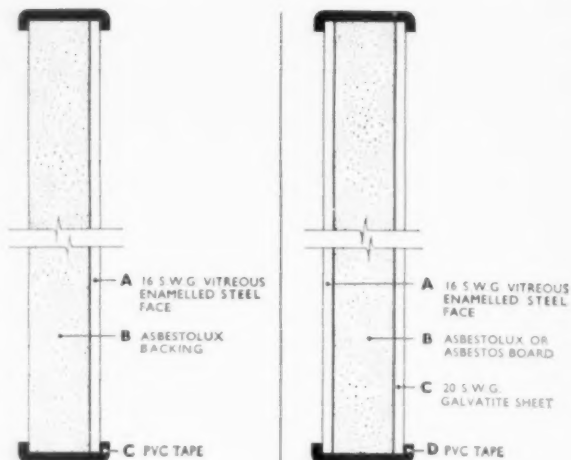


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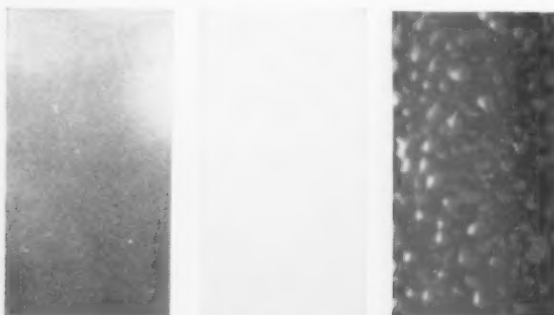


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.503	4 lb. 1 oz.	$\frac{3}{8}$ "	$\frac{1}{2}$ "	.500	6 lb. 0 oz.	$\frac{3}{8}$ "	$\frac{1}{2}$ "
.422	4 lb. 11½ oz.	$\frac{1}{2}$ "	$\frac{3}{4}$ "	.422	6 lb. 14 oz.	$\frac{7}{8}$ "	$\frac{3}{4}$ "

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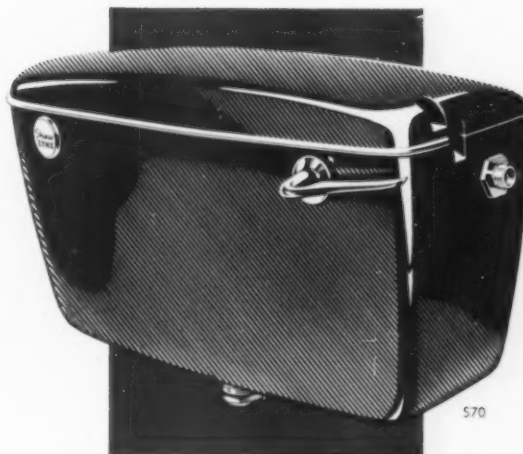
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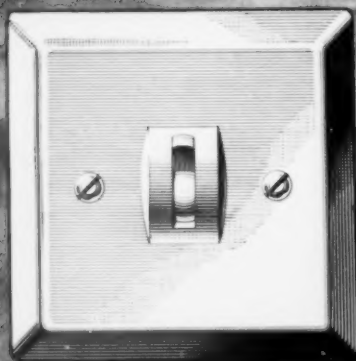
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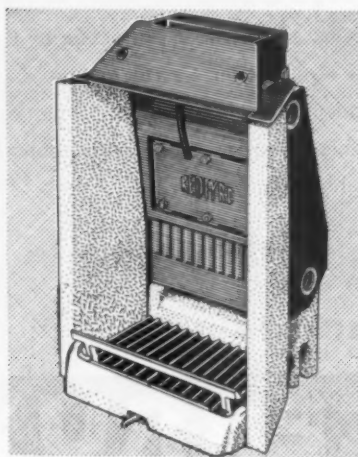
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17 February 1960

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URBAN RENEWAL OR URBAN BETRAYAL?

URBAN renewal is taking an unexpected and rather sinister turn in a number of provincial towns. At the R.I.B.A. symposium and exhibition last year, it was feared that such renewal as took place would be—to quote from the SPUR caption to the exhibition—"haphazard, plot-bound, and distorted by competitive interests" and that the general lack of development of town centres would produce "rotting and rotten city centres, collapsed urban land values and no open country to escape to".

This prognosis seems hopelessly wide of the mark. Central urban land values are not collapsing, they are soaring. Road congestion is getting worse but has not yet produced, as in America, a flight from the centres of towns.

In fact the opposite is happening over here: town authorities are trying to cash in on what they have suddenly realized are the potentially greater values of their central areas. They do this by promoting rebuilding schemes—mainly for shopping centres and offices—and hope in the process to realize larger ground rents and free land for road widening.

The disquiet caused by this turn of events is not in regard to the principle but the way in which redevelopment is being done. These towns are not preparing comprehensive plans for their central areas on the lines of some of the London schemes, such as the Elephant and Castle or the Barbican areas, or at the Bull Ring, Birmingham, and then inviting tenders for the whole or parts of the scheme.

Many of the smaller towns have no staff qualified to do the essential preliminary work on a comprehensive scheme, and they are not employing consultants. Although one town has asked for consultant advice rather too late and Dumbarton is to hold a competition, as announced in this issue, more often the town clerk or borough engineer approaches one or more of the big property consortiums to see how much they will offer in ground rent.

The schemes submitted in this way are seldom, if ever, related to the planning needs of the towns, and they do not pretend to offer even good contemporary architectural solutions.

In some cases the public only hear of these proposals when they are about to be accepted. There is usually no provision for independent professional advice and no guarantee of a public inquiry.

The result may well be a betrayal of the real interests of the town and may bring into disrepute the whole future of urban renewal.

A good deal of hard thinking about the problem is going on behind the scenes at institute and political levels, and it may be that the forthcoming conference sponsored by the Civic Trust will produce ideas which will help to achieve high quality central area renewal schemes without damping the enthusiasm of developers.

We invite correspondence on the subject, particularly from firms or consortiums who have had first-hand experience of the subject and from provincial architects and planners who have seen the problem developing in their own towns.

EVENTS AND COMMENTS

WINTER BREAK

I hope that it is not a sign of old age that, given adequate time in which to do my travelling, I very much prefer boat and train to aeroplanes. Sometimes air travel can, it is true, be convenient and even comfortable, but it is nearly always boring. Its worst fault is that it removes the joy of travelling by cutting down the period of eager anticipation to next to nothing, and providing, instead, a series of shocks to the physical and nervous systems which, though sometimes surprising, cannot compare for pleasure with the gradual arrival in foreign parts. To leave London on a foggy morning in what seems like winter and to emerge less than two hours later in Switzerland in what is clearly spring is admittedly agreeable, but just think of what has been missed on the way. For the surface traveller, one of the earliest pleasures of arrival in France, for instance, is that wave of garlic and gauloise which comes on board with the first rush of porters. Waiting to disembark is a bore, but if one does not behave like a sheep, one can always sit and read a book until everyone else has gone. This requires a lot of self-control, for there is always a slight feeling that the train may leave you behind. There is, however, often a great deal of waiting attached to air travel. At London Airport, long and unexplained delays often occur and passengers are left hanging about in a completely stateless condition, having, as far as the immigration laws are concerned, left England and certainly not yet arrived in any other country. This bout of philosophizing was brought about by a sudden and very welcome trip to Paris, than which I know of no better tonic. In a very crowded and busy weekend I picked up some interesting pieces of incidental intelligence and noted some changes in that slowly changing city.

Le Corbusier the other day addressed students of the Beaux Arts School; police had to be summoned to control the crowds. He talked largely about himself and his disappointments, but also strongly criticized architectural education in France. Marcel Lods, famous for his pioneering work with M. E. Beaudouin, in the early thirties, is 70 and still in practice, as energetic and forceful as ever. The exhibition of paintings by Gauguin at the Galerie Charpentier is drawing big crowds. I was quite ignorant of his earlier style and was quite unprepared for it. There seemed to me to be all too few of his more familiar Polynesian paintings. When the French put on a one-man show they take pains to collect photographs, letters, sketch books and other relics of the painter. This is a habit which I have mentioned before and which we might well copy. It serves very well to provide a background to the painter and to bring him out as a human being. Gallery-going to Paris is, by our standards, expensive: nearly 7s to go in and another 7s for the catalogue. I noticed that some of the pictures lent by an unidentified Scandinavian gallery were disgracefully and badly framed.

The International Union of Architects' Exhibition on Reconstruction, which was shown in Moscow, in 1958, was recently destroyed by fire in Marseilles Docks. The new franc makes you think a bit; most shops show everything, with both new and old prices and you soon get over the feeling that things have suddenly become very cheap. Shoeshop window-dressers now use pins to lift both the heel and toe of shoes from the back-

ground, the practice is almost universal. There seem to be fewer large cafés than there were. Young people, it is said, use cafés very little. Café life is said to be declining in Paris, but increasing in the provinces. More girls and young women are wearing black woollen stockings than in England. They appear to be quite normal office wear, with short, tight skirts. No one wears flat shoes any more. Only men wear fur hats and many girls have super beehive hair-dos which, with high heels, bring them almost up to normal height.

The bookstalls beside the Seine have lost almost all their charm. The supply of nineteenth-century prints has at last given out, and poor watercolours, crude American-catching can-can girls and lurid paper-backs make up most of the stock today. The markets are still splendid, as are the fog-horn cries of the saleswomen. Housing on the northern outskirts of the city seems unrelievedly bad. Vast quantities of it are going up with the aid of forests of tower cranes. I counted 24 on two adjoining sites. However, judging by the current issue of *L'architecture d'Aujourd'hui* there is quite a lot of good stuff being built too.

The Métro does not change much. I am sure the rolling-stock is at least 30 years old, with the same vitreous enamelled interior decoration. The stations still smell the same, but some of them have been unpleasantly jazzed-up with bright lights and shop windows. I had not realized that neon signs on buildings are strictly controlled round the Opera. Only white is allowed in the avenue itself and for a certain way up each of the boulevards which lead from it. The effect is altogether good as the Opera itself is floodlit in colour.

I heard constant complaints about the traffic, but after London the streets out of rush-hours seemed almost deserted. Parking is very difficult and, shame upon them, they are tearing down trees in the Boulevard Malesherbes, as part of a scheme to narrow the pavements and provide more parking space.

As I write it seems that there will not be a strike on our railways by the time you read this. It will not be bad form to mention, therefore, that the French railways are wonderful. I am told that, after a recent visit, Sir Brian Robertson said that we had nothing to learn from the French. If he really said this I am staggered. Their punctuality and smooth-running alone puts them streets ahead of ours. I remember, too, the days when we used to laugh at the filthy French locomotives when ours were newly painted and shining. The boot is on the other foot now.

SIR GILES GILBERT SCOTT

Sir Giles Gilbert Scott, who died last week, was a charming, quiet and unassuming person, entirely absorbed by his work. When over 70 he decided to give up all external activities, such as committees, in order, as he said, to devote himself entirely to his drawing board. I have always understood that he did all the detailing of his work himself. He was certainly a master architect. My favourite story about him concerns a committee meeting at which high finance was being discussed. After some time one of those present said: "Well, before we make any decision I would like to hear our chairman's views". "Oh", said Sir Giles, "I'm afraid I lost all track of the conversation quite 20 minutes ago". A short account of his life and work appears on another page. There will be a Requiem Mass at St. James's Church, Spanish Place, at 11 a.m. today.

TRADE AND TECHNICAL LITERATURE

The results of the R.I.B.A./B.C. competition for Manufacturers' Trade and Technical Literature, 1959, are announced on another page. Particular congratulations to Troughton & Young (Lighting) Ltd., who have gained the top award in Class I. This is their third success in three competitions. Congratulations, too, to the Cement & Concrete Association for gaining the Certificate of Exceptional Merit in Class II. The standard of entries was high, although small details seem to have spoiled a number of them. Not least among these is the apparent inability of some printers to trim their products to exact sizes. It is interesting to note that good typography and good information do not always go together, and to realize that the jury did not allow itself to be blinded either with art or science. Architects who have benefited from the general all-round improvement in trade literature in recent years will welcome the assessors' strong recommendation that the series of competitions should be continued. The entries submitted are on view at the Building Centre until March 5 and the certificates awarded will be presented by Mr. Basil Spence, P.R.I.B.A., at a meeting to be held there at 12 noon on March 24.

GREAT WEST ROAD ROW

There's a fine old row in progress in London, W.6, between people who live on either side of the new part of the Great West Road which runs from Hammersmith Broadway to the Chiswick roundabout. This road, as you may know, has a 40 m.p.h. limit on it, and many of the small crossing roads along it have been blocked on its north side. It has no pedestrian crossings and only two pedestrian subways in a length of about a mile and a half. A fence runs down the centre of the road except where there are traffic turn-outs from the south side. Where these occur there are refuges for pedestrians. Most of the people who want to cross this road do so on foot. It is quicker but infinitely more dangerous, since motorists do not confine themselves to a mere 40 m.p.h. and traffic is heavy. From the motorist's point of view this is the only decent stretch of motor road in London and there is no doubt that, combined with the notorious Chiswick fly-over, it has enormously improved main road conditions in this part of London. However, only the motorist driving along the road finds it attractive. If you have to turn across it, either from the north or south, it is extremely tedious and chancy.

The making of the road, which was planned as long ago as 1912 and not much redesigned after 1936, was accompanied by hard words, petitions and counter petitions, for it divided a community living in the St. Peter's Square-Chiswick Mall area. In the end the Mall was cut off from the shops and public transport by the road and given what is agreed to be an inadequate number of pedestrian subways.

Motor-borne residents of the Mall must drive an extra half-mile on their way to the shops because of the blocked roads. On the other hand, their access to and from London has been very much improved except for the difficulty of turning across the road. The St. Peter's Squares have benefited because the Square is sealed off from the new road and now has no through way. If, however, they want to visit friends on the Mall by car they must drive the extra half-mile. They must also use the inadequate subways or take the same



The late Sir Giles Gilbert Scott, a keen golfer, here seen in typical driving posture on the first tee at Camberley, during a match between the R.I.B.A. Golfing Society and the Building Alliance Golfing Society

risks as Mall dwellers. The important difference is that they do not *have* to negotiate the road to reach shops or public transport. The Mall dwellers must.

Not long ago an elderly woman was killed crossing the road and some St. Peter's Square people, moved by humanitarian feelings, got up a petition asking for the railing in the centre of the road to be made continuous so that pedestrians would have to use the subways. They suggested as an alternative that fences might be provided on the pavement edge because they realized that a centre fence would make life even more difficult for motorists from the Mall. This petition brought a sharp reaction from those on the other side, who immediately drafted a petition demanding traffic lights and the opening up of some of the sealed-up roads on the north side.

The original petitioners object to the idea of traffic lights because, they say, the road is a fast motor road and should be preserved as such. The southerners say it should be an ordinary suburban road with a 30 m.p.h. speed limit and pedestrian crossings controlled by lights. They hint that the Square dwellers do not like the idea of lights because they fear that the Square will be opened up to through traffic again. The truth is that there is a measure of justification for all the complaints and both the petitions.

The road is badly designed. It should have been provided with adequate vehicle and pedestrian underpasses, then everyone would have been happy. Something clearly will have to be done. From a town planning point of view, however, it would be crazy to reopen St. Peter's Square, for it would then provide a short cut from the Goldhawk road to the main way out of London, thus turning one of our all-too-rare quiet areas into a main traffic route.

ABNER

NEWS

The Late Sir Giles Gilbert Scott

It is with great regret that we record the death on Monday, February 8, of Sir Giles Gilbert Scott at the age of 79.

He had an extensive practice and designed, among other buildings, Liverpool Anglican Cathedral, the new House of Commons and Waterloo Bridge. Other churches of his were St. Paul's Church, Derby Lane, Liverpool, the Church of the Annunciation, Bournemouth, and the memorial chapel for Charterhouse School. He made additions to Clare College and the University Library, Cambridge, the new Bodleian Library, Oxford and a design for rebuilding Coventry Cathedral. He also designed the Bankside and Battersea power stations.

He was elected A.R.A. in 1916 and R.A. in 1922. In 1925 he was awarded the Royal Gold Medal for Architecture. He was knighted in 1924 and was awarded the Order of Merit in 1944. He was president of the R.I.B.A. from 1933-35.

Sir Giles was the second son of George Gilbert Scott, F.S.A. He was a Catholic and was educated at Beaumont College, Old Windsor. He was articled to Temple Moore and started practice on his own account in London in 1902. He was the third of his name to distinguish himself. The work of his grandfather, Sir Gilbert Scott, R.A. (1810-77), George Gilbert Scott, F.S.A. (1837-97), and his own work, show an architectural development of unusual continuity. In 1914 he married Louise Wallbank Hughes and they had two sons.

An appreciation of his work will appear in a future issue.

Trade and Technical Literature Competition

In the manufacturers' trade and technical literature competition for 1959, sponsored jointly by the R.I.B.A. and Building Centre, the results were:

Certificates of Exceptional Merit: Class I: Troughton &

Young (Lighting) Ltd. *Class II:* The Cement & Concrete Association.

Certificates of Merit: Class I: Ferodo Ltd. (runners-up for the Certificate of Exceptional Merit), The British Aluminium Co. Ltd., Redland Tiles Ltd. and The Universal Asbestos Manufacturing Co. Ltd. *Class II:* Coal Utilisation Council.

Honourable Mentions: Heal's Contracts Ltd., Imperial Chemical Industries Ltd., H. Newsum Sons & Co. Ltd., Profiled Spandril Panel Co. Ltd., Q.V.F. Ltd., Watts Metal Industries Ltd. and Natural Asphalte Mine-Owners & Manufacturers' Council.

The assessors (G. Grenfell Baines, Sir Hugh Casson, Bruce Martin and Bryan Westwood) said in their report that they wished to stress that some guidance on cost should always be given. It was not enough to say that prices were competitive. They noted that good typography and good information did not always go hand in hand. When it did, the result was sometimes spoiled by the bad organization of the material provided.

Warwickshire County Architect Appointed

Eric Davies, deputy county architect, Warwickshire, has been appointed county architect in succession to the late G. R. Barnsley.

Boots the Chemists

Boots the Chemists have been engaged, since 1950, in modernizing their 1,300 shops. They propose, over the next five years, to spend between £10 and £15 million, and are going to spend £2 million this year. They hope to double the total sales area of their shops within the next ten years and intend to refit 65 shops a year. Their aim is to "modernize" every shop at least once every 20 years.

Boots do not intend to introduce a stereotyped shop that will be repeated throughout the country. At present their buildings are sometimes designed by city or development architects, but they like to have control over their own elevations.

Their new shops will be more spacious and colourful.

In Parliament

Vandalism Claim by M.P.

It would be an act of vandalism to destroy the great hall and shareholders' room at Euston Station, declared Mr. Woodrow Wyatt (Lab., Bosworth), in the House of Commons on Tuesday.

Sir Keith Joseph, Parliamentary Secretary to the Ministry of Housing, had told him that the British Transport Commission had given notice that it intended to remove the great hall and Doric arch at Euston Station. The notice was given to the L.C.C., which had informed the Minister. Mr. Brooke was now considering the matter.

Mr. Wyatt, asking Sir Keith if he did not agree that this would be an act of vandalism, pointed out that Euston Station was the first railway station to be built in any capital city of the world, and was designated as an historic monument. He asked him to see that the B.T.C. was made to produce an alternative scheme for lengthening the railway line.

Mr. Wyatt suggested it might be acceptable to remove the Doric arch nearer to Euston Road, provided it was not in any way disfigured or altered in so doing.

Sir Keith said Mr. Brooke was considering alternatives regarding the arch. The proposals regarding the share-

holders' room and the great hall were now under discussion with the B.T.C., the L.C.C. and external advisers to see whether there could be any modification.

Mr. Julian Snow (Lab., Lichfield) asked if Sir Keith realized that not everyone was convinced that there was a case for protection of the Doric arch on artistic grounds. "Whilst it may have historic interest, not everybody is convinced that it has great artistic merit," he concluded. (February 9.)

Piccadilly Circus—No Decision Yet

Mr. Henry Brooke, the Minister of Housing, promised the Commons, on Tuesday, that he would announce his decision with regard to the redevelopment of the Café Monico site at Piccadilly Circus as soon as he could, but warned members that it was bound to be some time before he would be in a position to do so.

Mr. Kenneth Robinson (Lab., St. Pancras, N.) asked if the inspector who conducted the recent public inquiry had yet sent in his report, and could the Minister give some indication, in view of the importance and urgency of the matter, when the decision might be expected.

Mr. Brooke said he had not yet received the report, but thought there was common agreement that his inspector conducted the inquiry with great skill. "I certainly would not wish to hurry him in completing what necessarily must be a long and difficult report to compile," he said. (February 9.)

The counters and wall fittings will be in light wood and interiors decorated with pastel shades.

New Civic Buildings Competition, Neath

Architects registered under the architects' registration acts are invited to submit designs in competition for new civic buildings, comprising offices, council chamber and public hall, to be erected at Fairfield, Neath. The assessor is Sir Percy Thomas. Premiums: first prize, £1,000 (to be merged with fee); second prize, £500; third prize £300. Conditions and site plan may be obtained on application to town clerk, Town Hall, Neath, or clerk of the council, Orchard Chambers, Neath (deposit £2 2s, returnable on receipt of a bona fide design).

Central Area Development Competition, Dumbarton

Architects resident in the United Kingdom are invited to submit designs for an area of 40 acres for redevelopment, primarily for commercial use, in the centre of the burgh. Assessor: Professor R. H. Mathew, C.B.E. Premiums: £1,200, £900 and £500. Conditions may be obtained from the town clerk of the Royal Burgh of Dumbarton, Municipal Buildings, Dumbarton. Deposit £2.

Bradford Hospital Appointment

Watkins, Grey & Partners, of London, have been appointed architects in connection with the proposed new Eye and Ear Hospital, Bradford.

New Leeds City Architect

A special committee of Leeds City Council representatives last week appointed J. R. Sheridan-Shedden, F.R.I.B.A., deputy city architect of Birmingham, as city architect of Leeds, in succession to the late R. A. H. Livett. The appointment carries a salary of £3,605 a year. Mr. Sheridan-Shedden, who is 46, married, but no children, has been deputy city architect of Birmingham for seven years, prior to which he was architect to the Birmingham Education Committee, and before that an architect with Harlow New Town. In the last war he served in the army as a captain in the Royal Engineers in Africa, Italy, France and Germany.

Crawley Development Corporation: Chairman Designate

General Sir Nevil Brown John, G.B.E., K.C.B., C.M.G., M.C., has been appointed a member of Crawley Development Corporation, with a view to succeeding Sir Thomas Bennett as chairman when the latter retires in a few months time.

Ford Foundation Travel Grants

These grants are intended for those who have not previously been to the United States, nor are likely to have another opportunity of visiting that country in the normal course of their career. The English-Speaking Union are inviting applications for grants in the field of the arts. Grant holders may take up the grant after mid-September, 1960, but the tour must be completed before July, 1961, and it is a requirement that the holder should make the visit to the United States unaccompanied. The maximum age limit for applicants is 50.

Each grant provides for tourist class travel by sea or air to and from the United States and travel within that country. There is a subsistence allowance for each day spent in the United States, up to a maximum of 56 days, the recommended length of the visit.

Sets of application forms are obtainable from the secretary, The English-Speaking Union, Dartmouth House, 37 Charles Street, Berkeley Square, London, W.1, to whom applications must be returned by Saturday, May 7, 1960.

Town and Country Planning School, 1960

The Town and Country Planning Summer School is to be held at the University of St. Andrew's, from August 27 to September 3, 1960. The subjects for the main lectures provisionally chosen are: the problems posed by land values; social aspects of leisure; regional planning problems of Clydeside; the location of industry; design. Application form, and further particulars are obtainable from: the secretary, Town and Country Planning Summer School, 18 Ashley Place, London, S.W.1.

T.P.I. 34th Annual Spring Meeting, 1960

The Town Planning Institute's thirty-fourth annual spring meeting will be held at Newcastle upon Tyne, on Thursday and Friday, May 26 and 27, inclusive. Papers will be read by John R. James, O.B.E. ("The Next Review of Development Plans") and Councillor T. Dan Smith ("Development Problems of a Regional Capital"). Further particulars and forms of application are obtainable from the secretary, The Town Planning Institute, 18 Ashley Place, London, S.W.1. Forms must be received not later than April 21.

Conference for Churchmen to Brief Architects

A three- or four-day conference is to be held in Birmingham from Monday, April 4, to Thursday, April 7, 1960, on the problems which arise when church authorities ask an architect to design a new church building. Comparison between the new churches of Britain and some in continental Europe suggests that a continued exchange of views between architects and clergy (of all denominations) is most desirable. Programmes and application forms will be forwarded to all who send in their names and addresses to the Department of Extra-mural Studies, The University, Edmund Street, Birmingham, 3, who are organizing the conference.

Association of Official Architects: New Branches and Officers

The following new branches have been formed and their officers elected: An East Anglian Regional Branch: chairman, J. H. Podgson; vice-chairman, P. R. Coulten; hon. secretary, G. Keith; hon. treasurer, J. R. Leaks. Committee members: J. Turner, P. H. Liversidge, H. Whightman and G. G. Quarmby.

A Liverpool Regional Branch: chairman, R. R. Burton; vice-chairman, G. Brereton; hon. secretary, G. T. Higson; hon. treasurer, B. A. Ryder. Committee members: J. A. Williams and F. A. Brudenell. Regional representatives, J. H. Davies, member of Association General Council; publicity officer, G. Elliott.

Northants, Bedfordshire and Huntingdonshire Regional Branch: chairman, H. Hartley; hon. secretary and treasurer, A. F. Parquay. Committee members: G. W. Waters, F. E. Sherratt, K. G. Dines and K. V. Trigg.

Miss Moira Shield has had to resign secretaryship of the association and pending the general election of a new general council this year, Mr. G. J. Foxley has been appointed as acting hon. secretary.

Whilst new towns and hospital boards will continue to be represented by an elected member on the general council, it is the association's wish that new towns support the appropriate regional organization in which they are geographically situated.

Faculty Professional Luncheon

The Faculty of Architects and Surveyors are to hold another professional luncheon, this time at the Waldorf Hotel, Aldwych, London, W.C.2, on Wednesday, February 24. The luncheon is scheduled for 12.30 for 1 p.m. and the guest speaker will be Richard Edmonds, chairman of the L.C.C.'s Town Planning Committee, who will speak on "The New London". Tickets are obtainable from the secretary at the Faculty's headquarters.

News continued overleaf

Professional Announcements

George A. Hall, James O'Donahue and Colin Wilson have opened an office at 18 Bluecoat Chambers, School Lane, Liverpool, 1, where they will practise under the style of Hall, O'Donahue & Wilson.

Leslie K. Watson and Harold J. Coates, F./F.R.I.B.A., have moved their office to 3 Raymond Buildings, Gray's Inn, London, W.C.1 (telephone: Holborn 4623/4).

Taylor & Young, chartered architects, of 195 Oxford Road, Manchester, 13, are now to be known as Taylor, Young & Partners. The partners are: W. Cecil Young, F.R.I.B.A., Haydn W. Smith, F.R.I.B.A., Arthur Pell, A.R.I.B.A., Norman C. Crook, A.R.I.B.A.

T. F. Gillman & Co., registered architects (T. F. Gillman, B.A.R.C.H., A.R.I.B.A., A.N.Z.I.A., and D. A. Sayers, A.A.D.P., A.R.I.B.A., A.N.Z.I.A.), have moved to Federated Farmers Building, C.P.O. Box 657, London Street, Hamilton, New Zealand. Telephone 31-409.

W. E. J. Budgen practises as a consulting civil and structural engineer under the style of W. E. J. Budgen & Partners, at 54 Queen Anne Street, London, W.1 (telephone: Welbeck 2642).

S. E. Shepherd, F.R.I.C.S., L.R.I.B.A., has taken into partnership O. F. Nicholson, F.V.I., and A. T. Wickham Robinson, D.P.L.A.R.C.H.(LEEDS), A.R.I.B.A. The style of the firm will be Shepherd, Fowler & Marshall, architects, surveyors, land agents and valuers, 15 St. James' Row, Sheffield, 1 (telephone: Sheffield 28854-5-6).

G. A. Jellicoe & Partners, of 12 Gower Street, London, W.C.1, are now practising under the style of Jellicoe, Ballantyne & Coleridge.

Miss Wendy Powell, A.I.L.A., assistant landscape architect to the Hemel Hempstead Development Corporation, was awarded a foreign scholarship to undertake graduate studies in landscape architecture at the University of Pennsylvania, Philadelphia, U.S.A. She commenced in September, 1959.

Eric G. V. Hives, L.R.I.B.A., has taken his two sons, Colin V. Hives (DIPL.A.R.C.H.(OXFORD), A.R.I.B.A.), and John G. Hives (DIPL. ARCH.(OXFORD), A.R.I.B.A.), into partnership under the style of Eric G. V. Hives & Sons. The practice will be conducted from: 46 Queen's Road, Reading, Berks (55484/5), 80 Wimpole Street, Cavendish Square, London, W.1 (Welbeck 0012/3) and 21 Market Place, Derby (48922).

George A. Macnab, A.R.I.B.A., A.M.T.P.I., and Stuart Renton, A.R.I.B.A., have joined Alan Reiach, F.R.I.B.A., A.M.T.P.I., in partnership. The firm will practise as Alan Reiach and Partners, 22 Ainslie Place, Edinburgh 3 (telephone 32541).

Mr. John West Holmes, A.R.I.C.S., A.L.A.R.B., lately of Mevagissey, has now established his practice as a chartered quantity surveyor at 45 Bodmin Road, St. Austell, Cornwall (telephone: St. Austell 3848), where he will be pleased to receive all trade catalogues and price lists.

H. A. Halpern, A.R.I.B.A., will in future practise under the style of H. A. Halpern and Associates, chartered architects and town planning consultants. A London office has been opened at Cumberland Chambers, 7 Edgware Road, Marble Arch, London, W.2 (telephone: Ambassador 2471-3). The office at 26 High Street, Chatham, will continue to practise and be in the charge of S. Grahame Budd, A.R.I.B.A., and the office at 60 Woodland Lane, Leeds, 7, in the charge of J. Cybulski, ING. ARCH., A.M.T.P.I.

Aslan & Freeman, chartered architects and town planning consultants, have changed their office address from 90 Lower Thames Street, E.C.3, to 8 Oxendon Street, Haymarket, London, S.W.1 (telephone: Whitehall 8707/8/9).

The name of the firm of architects, Easton & Robertson, has now been changed to Easton & Robertson, Cusdin, Preston and Smith.

The London practice of W. H. Saunders & Son has been joined in partnership by D. Tennyson Waters, DIP.A.R.C.H.(HONS.), A.R.I.B.A. This firm, now known as W. H. Saunders, Son & Waters, will practise at 53 Goodge Street, London, W.1. Practices in Southampton, Portsmouth, Coventry and Gosport remain unchanged.

S. W. Sherwin, F.R.I.C.S. and W. W. Kerr, F.F.S., have formed a partnership to associate their practices. They will practise at 38 Bedford Place, Bloomsbury, London, W.C.1 and 4 South Square, Boston, Lincolnshire, under the name of Kerr, Sherwin.

Housing Progress, December, 1959

The number of permanent houses completed in Great Britain during December was 26,436, compared with 23,251 in December of 1958. Of this total 12,263 were completed by public authorities and 14,173 by private builders. During the year 1959, 276,674 permanent houses were completed, compared with 273,695 in the same period of 1958. The number of new houses completed in Scotland was 27,293.

Coming Events

Institute of Landscape Architects

February 23, at 6.15 p.m., at the Lecture Room, 1 Park Crescent, Portland Place, W.1. "Collaboration between the Architect and the Landscape Architect", a discussion between Arthur Ling, F.R.I.B.A., M.T.P.I., and Bodfan Gruffydd.

The Institution of Civil Engineers

February 23, at 5.30 p.m., at Great George Street, Westminster, S.W.1. Traffic Engineering Study Group: Informal discussion on "Junction Design on Motorways".

The Design Centre

From February 22 to April 2. "And so to Bedrooms", a large-scale special display dealing with bedrooms.

British Road Federation

February 18, at 6 p.m., at the Friends' Meeting House, Euston Road, London, N.W.1. "Cities—Living with the Motor Vehicle", a paper by Christopher T. Brunner, M.INST.T.

The Building Centre, London

February 24, at 12.45 p.m. Lunchtime film show. "Roofs of Clay", The National Federation of Clay Industries.

March 1, at 6.30 p.m., at Store Street, W.C.1. Lecture on "Lightweight Cellular Screeds with Asphalt and Felt Roofing Finishes", by Peter Cable, managing director, Isocrete Co. Ltd. Chairman: Frederick S. Snow, C.B.E., M.I.C.E., M.I.MECH.E., M.CON.S.E., P.P.I.STRUCT.E.

The Polytechnic

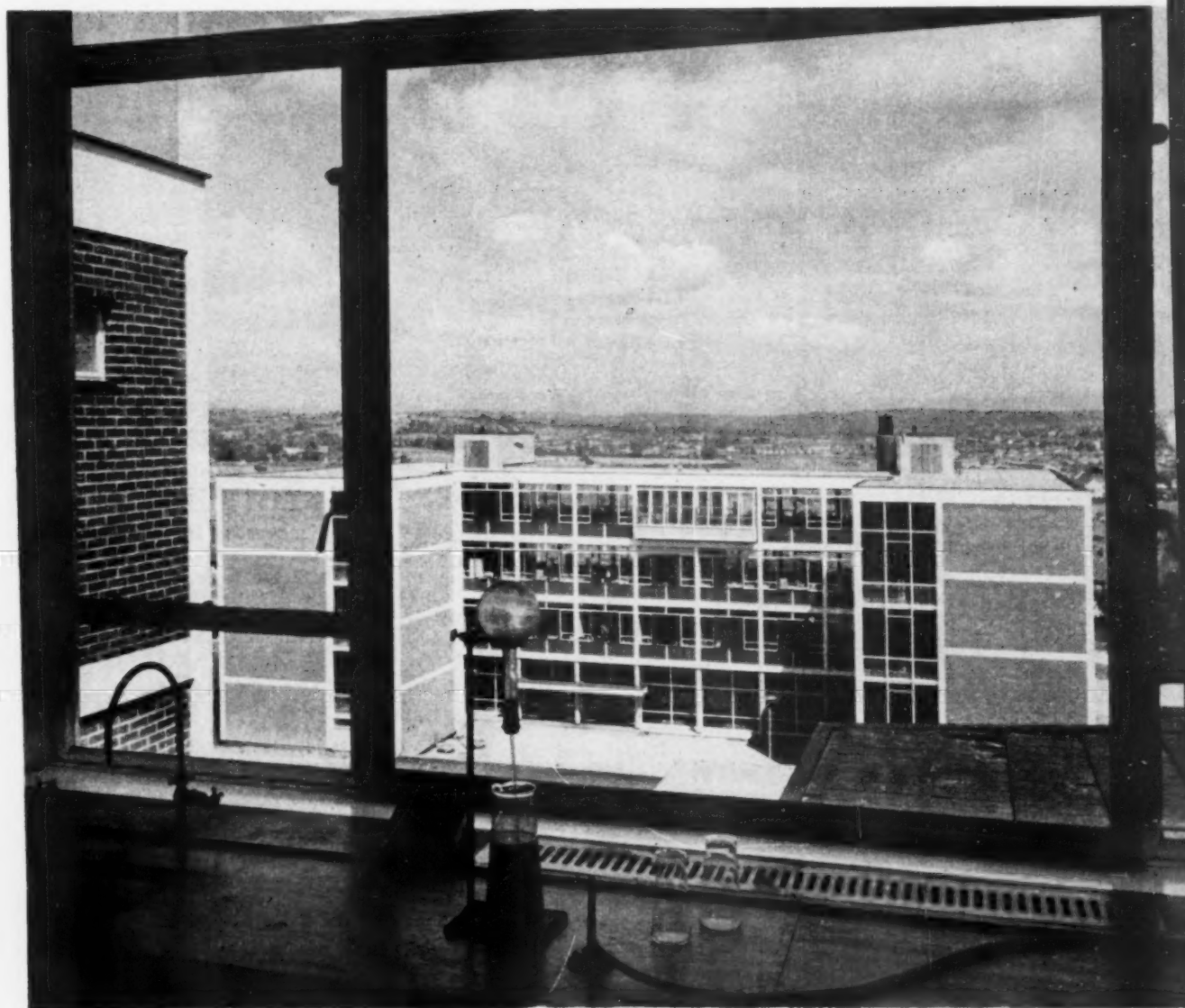
February 18, from 6.30 p.m. to 8.30 p.m., at Regent Street. Lecture on "Space Structures—Modern Trends and Recent Developments", by Z. S. Makowski, PH.D., DIP.ING., D.I.C. (Imperial College of Science and Technology).

The Architectural Association

February 20. Visit to B.B.C. Television Centre, by Graham Dawbarn (Norman & Dawbarn) in association with M. T. Tudsberry (consulting civil engineer to the B.B.C.). Admission by ticket only.

February 24, at 8 p.m. (dinner at 7 p.m.). Ordinary general meeting. "A New Town in France—Bagnols-sur-Geze", by George Candilis. Illustrated by slides and a 35mm film. Seats for dinner (7s 6d) must be reserved and paid for in advance.

THREE SCHOOLS FOR THE MIDDLESEX COUNTY COUNCIL



The John Kelly School has within it two schools, boys and girls being separated into two parts (see site plan below). Above, the main teaching block of the girls' school seen from the adjoining block

JOHN KELLY SECONDARY SCHOOL, WILLESDEN

County Architect: H. J. WHITFIELD LEWIS in succession to C. G. Stillman

Group Architect: D. R. DUNCAN

Senior Architect in Charge: G. NEWMAN

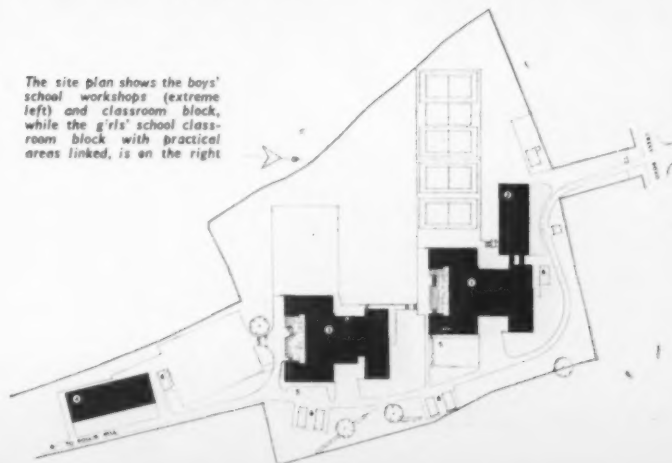
Assistant Architects: L. J. TERRY, P. MCKINLEY, D. LEES, G. BATHAM and J. VICKERY

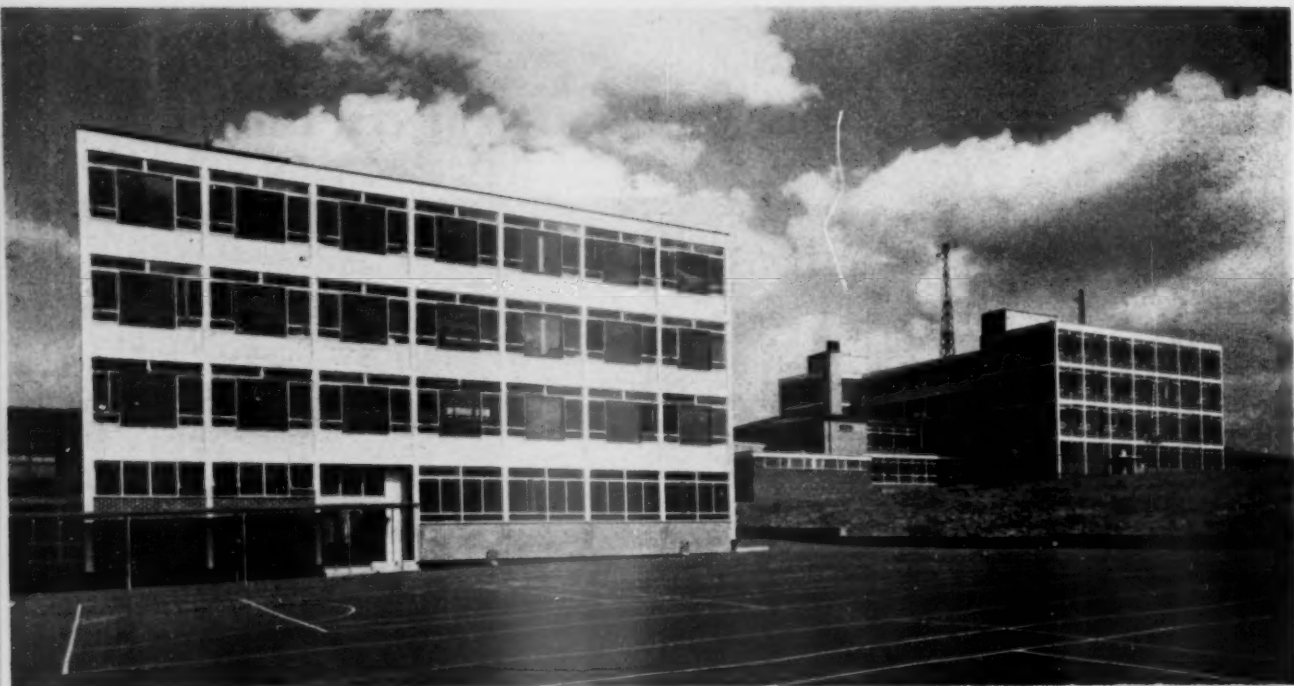
Structural Consultants: F. SAMUELY & PARTNERS

Mechanical Engineering Consultants: G. H. BUCKLE & PARTNERS

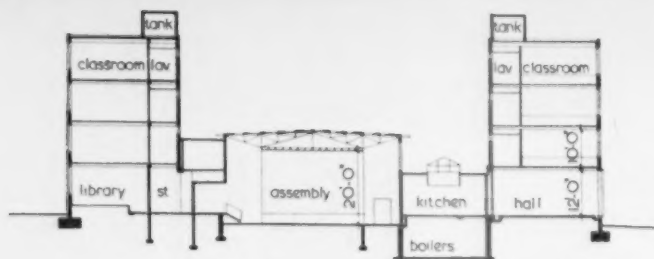
Quantity Surveyors: MERCER & MILLER

The site plan shows the boys' school workshops (extreme left) and classroom block, while the girls' school classroom block with practical areas linked, is on the right





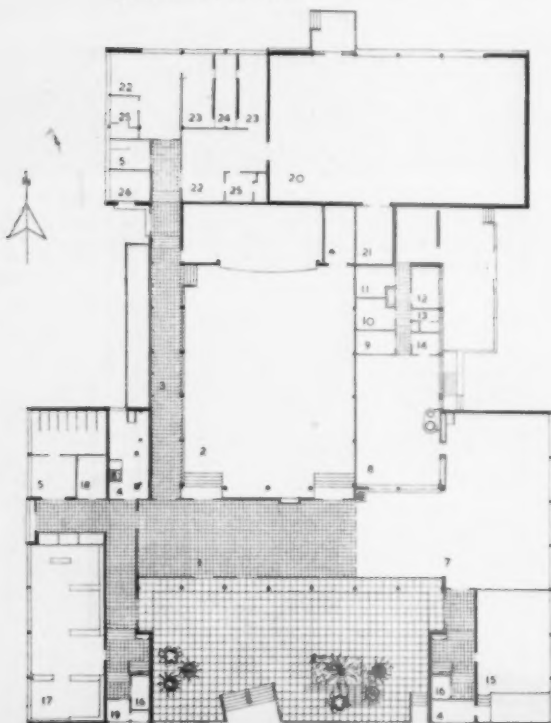
Above, the two teaching blocks seen from a games area. In planning the schools are compact, but a sense of spaciousness and views of surrounding landscape is maintained



CROSS SECTION ▲

▼ GROUND FLOOR

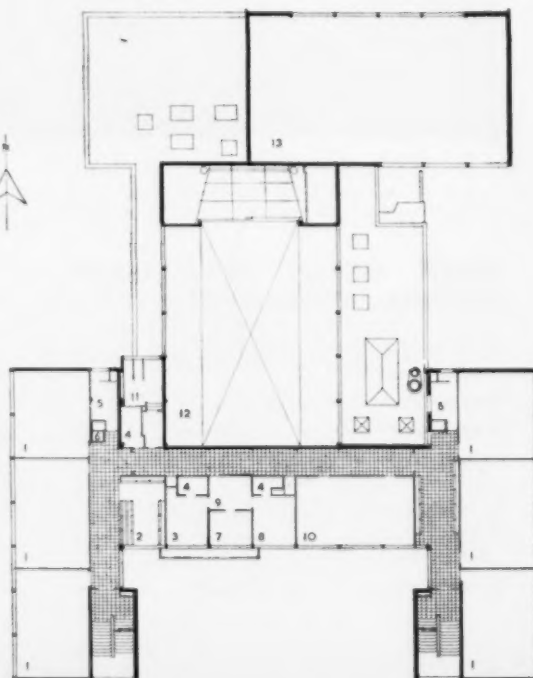
KEY: 1. Entrance hall. 2. Assembly hall. 3. Gallery. 4. Store. 5. Pupils' lavatories. 6. Lift. 7. Small hall. 8. Kitchen. 9. Vegetable store. 10. Dry store. 11. Larder. 12. Staff. 13. Staff lavatories. 14. Office. 15. Music. 16. Cleaner. 17. Library. 18. Switches. 19. Visitors' lavatories. 20. Gymnasium. 21. Gymnasium store. 22. Changing. 23. Drying. 24. Showers. 25. Instructor. 26. Games store.



▼ FIRST FLOOR

SCALE: 1 IN=40 FT

KEY: 1. Classrooms. 2. Cloaks. 3. Head. 4. Store. 5. Pupils' lavatories. 6. Lift. 7. Secretary. 8. Assistant head. 9. Waiting. 10. Staff room. 11. Staff room. 11. Staff lavatories. 12. Upper part assembly hall. 13. Upper part gymnasium.



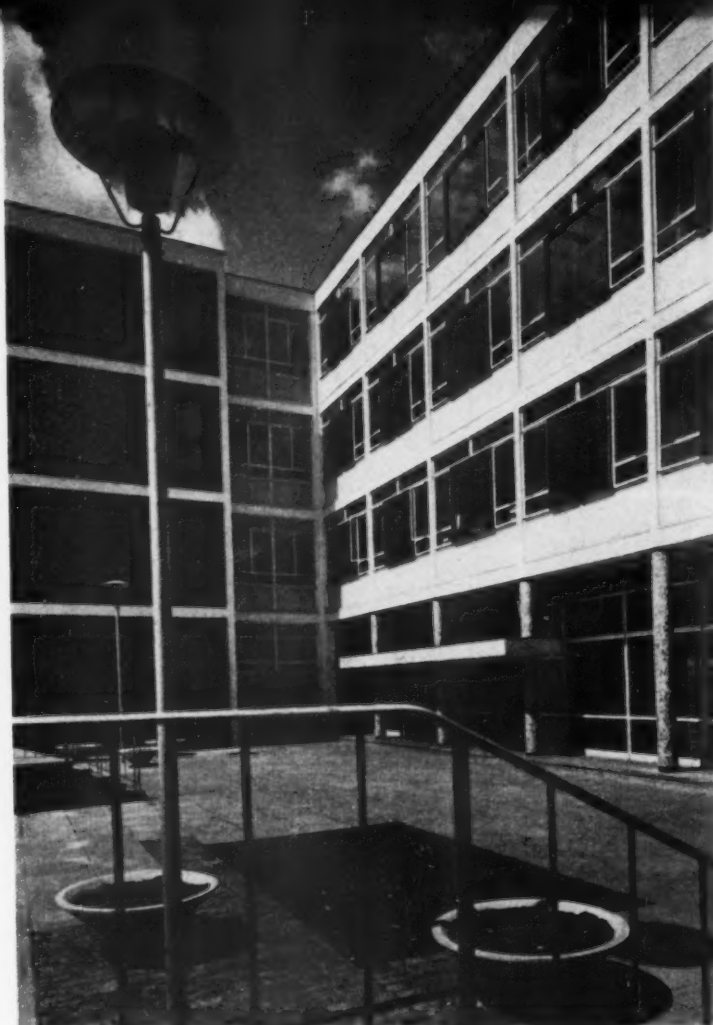
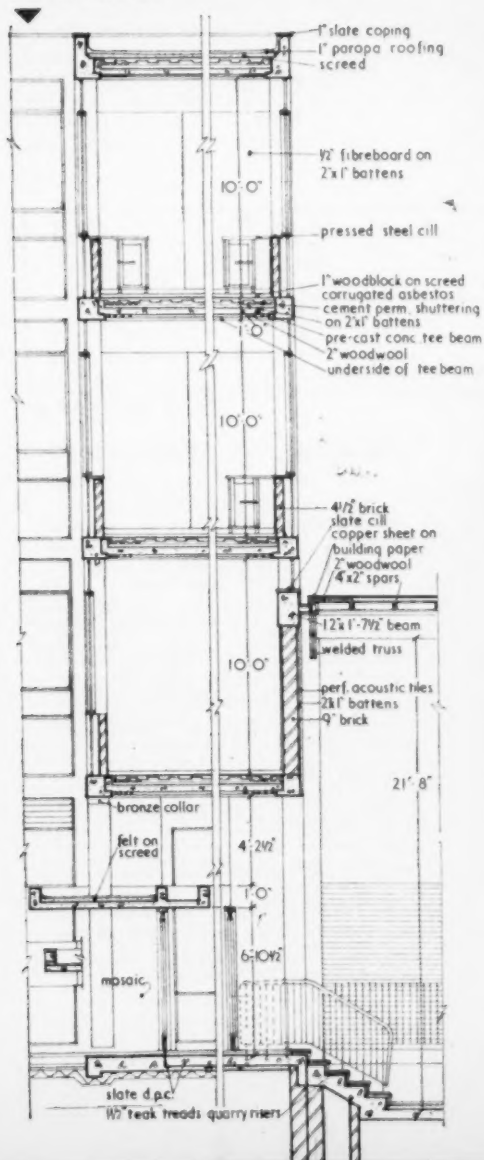
THE site of the schools comprises some 9½ acres on the north side of Crest Road, with a narrow strip of land flanked by the Post Office Research Station connecting it to Dollis Hill Lane. The ground rises steeply from the main entrance in Crest Road to a ridge from which a footpath slopes down to the Dollis Hill Lane entrance.

Planning

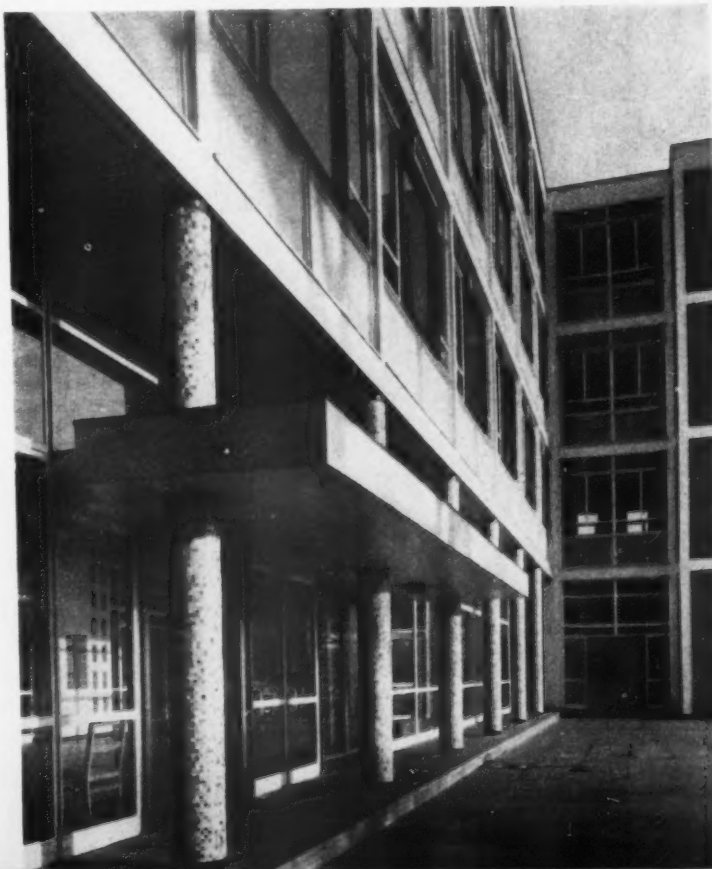
The concept of the planning was to achieve compactness while still maintaining a sense of spaciousness and to provide views of the surrounding landscape.

Each school consists of a main teaching block, four storeys in height, and a single-storey detached block containing specialist rooms. The main teaching blocks are H-shaped on plan, the outer lines of the H containing on each floor the classrooms, and the cross bar accommodating the entrance hall, administration suite and laboratories on the respective floors.

SECTION THROUGH TEACHING BLOCK AND ASSEMBLY HALL JUNCTION SCALE: 1 IN = 8 FT



Above and below, two views of the main entrance to teaching blocks. Structural detail is shown to the left



Construction

The structural frame of building is in *in situ* reinforced concrete while floors and roofs are generally in pre-cast prestressed inverted Tee beams filled in between with woodwool slabbing.

Cladding is generally in 11in cavity brickwork faced partially with Murex-glass panels, while granite-faced slabs and cedar boarding are introduced in the gymnasium block.

Roofs, where flat, are covered with Paropa and the pitched roofs are copper covered. Windows generally are in steel with hardwood insets to pattern the main elevations.

Internally, partitions are mainly in lightweight blocks and plastered, or in fairfaced 4½in brickwork.

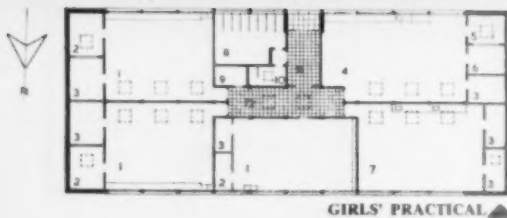
Floorings are in wood block to the main teaching areas while the dining and circulation areas are covered with Granwood flooring, quarry tiles being employed for the kitchens and sanitary accommodation.

Services

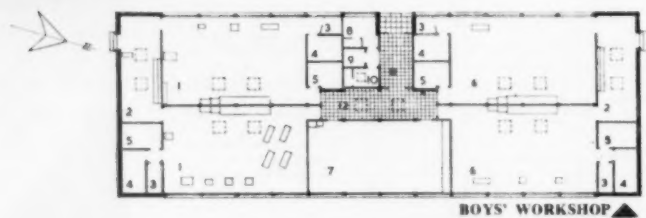
Each school is complete with its own oil-fired, low-pressure, hot-water radiator system of heating and centralized hot-water installation.

Cost

The total accommodation provided for 600 pupils in each school gives an area of 72 sq ft per pupil, and the cost on tender of the project, which was completed in three years, was £389,555.



Girls' Practical Block. KEY: 1. Needlework. 2. Fitting. 3. Store. 4. Craft. 5. Kiln room. 6. Damp store. 7. Art. 8. Pupils' lavatories. 9. Cleaner. 10. Staff lavatories. 11. Vestibule. 12. Exhibition corridor. Boys' Workshops Block. KEY: 1. Metalwork. 2. Materials' store. 3. Teachers' store. 4. Day school store. 5. Evening class store. 6. Woodwork. 7. Drawing office. 8. Pupils' lavatories. 9. Cleaner. 10. Staff lavatories. 11. Vestibule. 12. Exhibition corridor.



SCHOOL AT WILLESDEN

General Contractors:

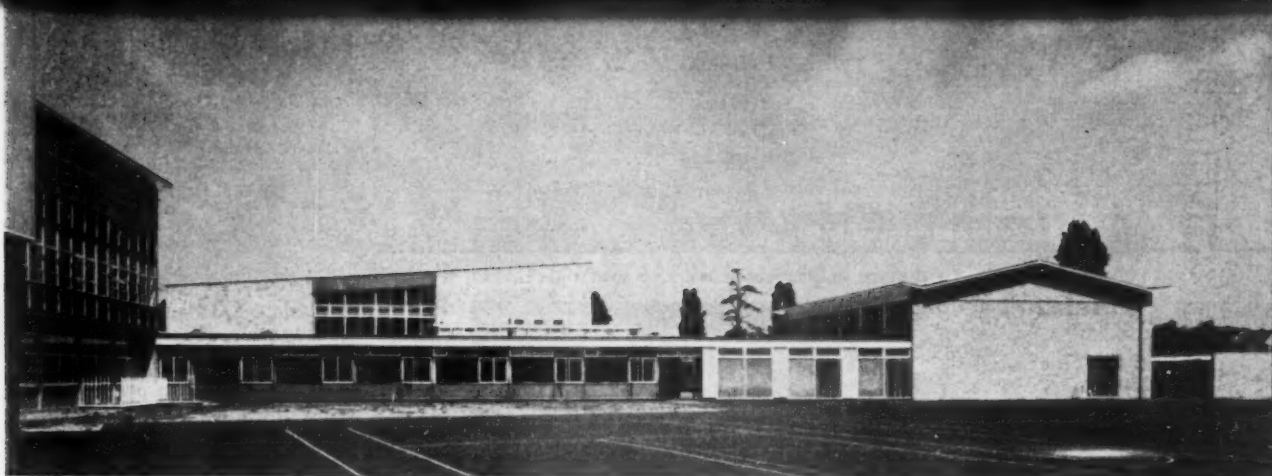
J. LAWSON & CO. LTD.

Sub-contractors and suppliers:

W.I. Balustrades: Clark, Hunt & Co. Ltd. Blinds: London Blind Ltd. Bronze Radiator Panels: Copperad Ltd. Cycle Stands: M.A.C. Engineering (Bristol). Decorative Tiles and Frost Proof Co.: Parkinsons (Wall Tiling) Ltd. Dome Lights: T. & W. Ide Ltd. Electrical Installation: Grierson Ltd. Flower Tube: Walter Lawrence & Son Ltd. Granwood Flooring: Granwood Flooring Co. Heating, Hot Water and Gas Installations: Z. D. Berry & Sons Ltd. Ironmongery: Sharpe & Fisher Ltd. Kitchen Equipment: Z. D. Berry & Sons Ltd. Lantern Lights: Welstead Ltd. Lift Installation: Waygood Otis Ltd. Metal Faced Partition: Flexo Plywood Industries Ltd. Metal Steps and Cat Ladder: Clark, Hunt & Co. Ltd. Metal Tubular Barrier and Metal Entrance Gates: J. Lawson & Co. Ltd. Metal Vents to Base of Dome Lights: Greenwoods & Airvac Ventilating Co. Ltd. Metal Windows: Welstead Ltd. Metal Window Gearing: Welstead Ltd. Murexglass Panels: Aygee Ltd. Paropa Roofing: Frazzi Ltd. Patent Glassed Wall Finish: Collins (Contractors) Ltd. Patent Suspended Soffit Lining: J. Lawson & Co. Ltd. R.C. Structural Work: Camber Concrete Ltd. Roller Shutters: G. Brady & Co. Ltd. Sanitary Fittings: J. H. Sankey. Stage Equipment: Tidmarsh & Sons. Structural Steelwork: Aston Construction Co. Ltd. Tar Paving: H. V. Smith & Co. Ltd. Vitreous Mosaic Facing: Parkinson (Wall Tiling) Ltd.

Top, two views of the assembly hall planned at the "heart" of the schools. Below, the entrance hall





WHITTON SECONDARY MODERN SCHOOL, TWICKENHAM

County Architect: H. J. WHITFIELD LEWIS in succession to C. G. Stillman

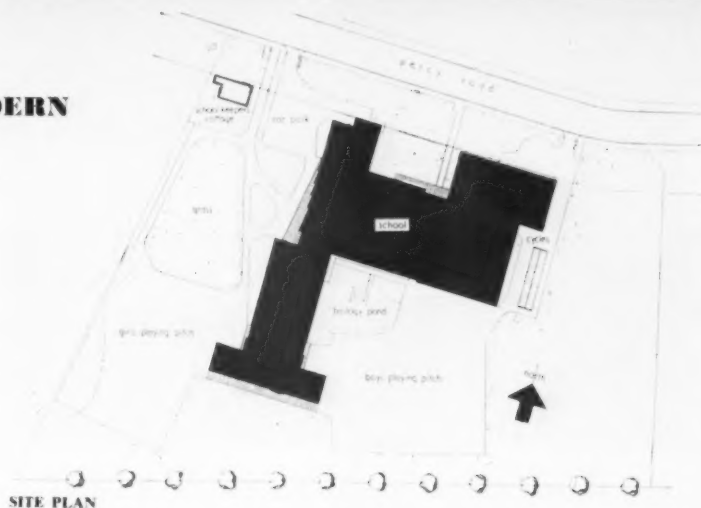
Group Architect: E. L. GUNSTON

Assistant Architects: R. GRUNBERG and P. F. PIPER

Chief Structural Engineer: A. J. HOLMES

Chief Mechanical Engineer: H. L. HAMMOND

Quantity Surveyors: HARRY TRINICK & PARTNERS



SITE PLAN

THE site is almost level and consists of $4\frac{1}{2}$ acres of treeless land, flanked by Percy Road on the north and by Chertsey Road on the south. The area of the site was reduced by about one-third by certain imposed limitations: the proposed widening of Chertsey Road, a 40ft building line to be observed along Percy Road, and the avoidance of any access whatsoever to the site from Chertsey Road. The tar paved areas have, in part, been sited over the assumed future Chertsey Road building line, and, as there is no space for playing fields, care was taken to preserve as large an area of grassed land as possible in a regular shape.

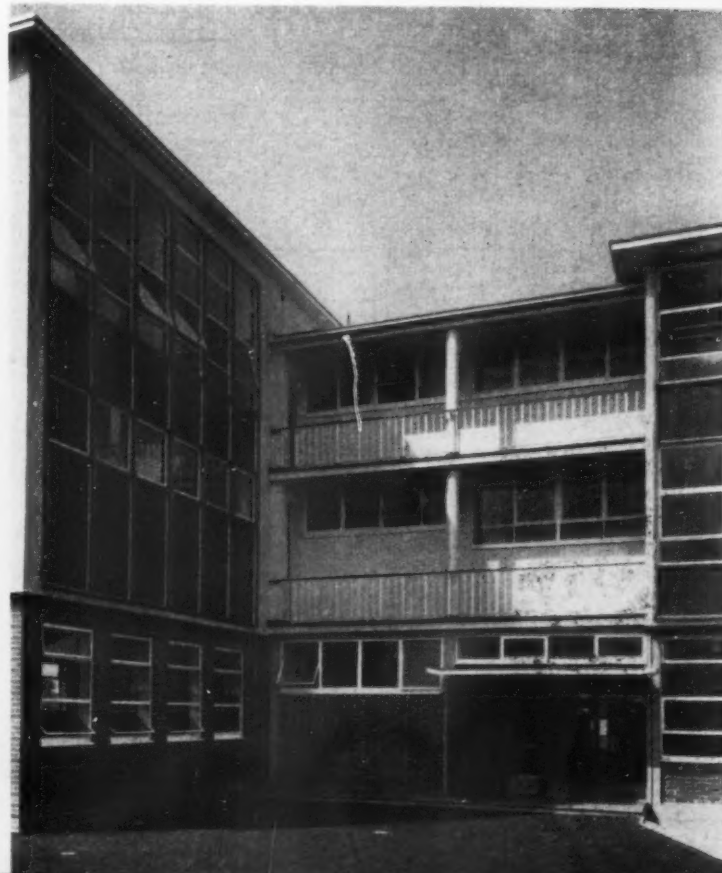
Planning

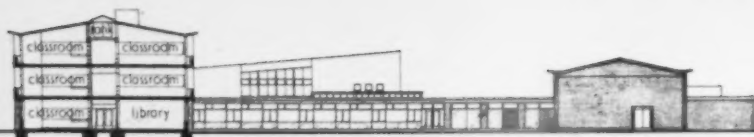
The main entrance to the site is in the north-west corner, and there are additional entrances to the workshops and gymnasium.

The three-storey double-banked classroom block gives east and west light to the classrooms; it is flanked by the science/art and craft block on the south and the assembly hall and workshops on the north. These two blocks act as barriers against noise from the two main roads.

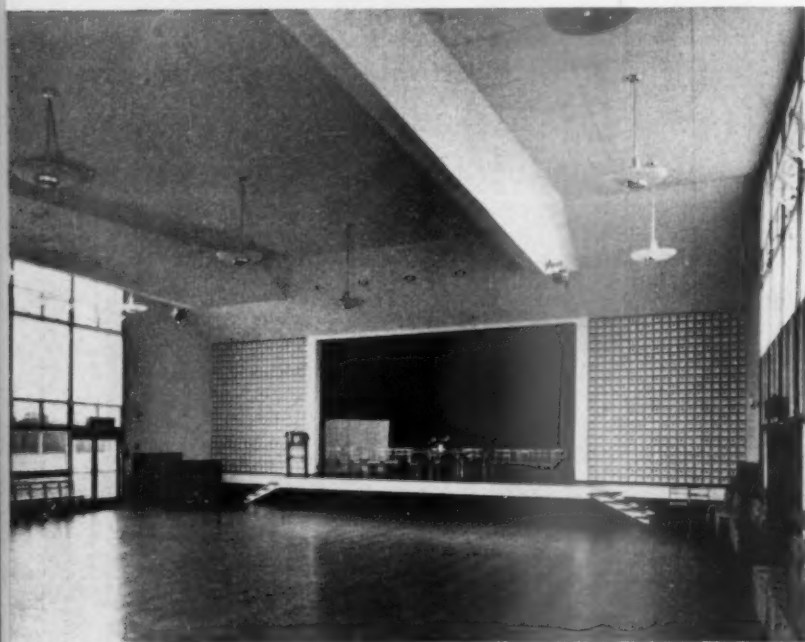
Sanitary and cloakroom accommodation is placed on all floors in a link between the science and classroom blocks. This also houses the stair-

Top, Whitton school seen from the boys' playing pitch. Below, one of the entrances on the north face





SECTION THROUGH CLASSROOM BLOCK AND SOUTH ELEVATION



Above, the assembly hall. In order to make the available space as adaptable as possible for various uses, a series of sliding/folding doors separate the assembly hall from the dining room which can itself be divided into two classrooms if necessary

case and pupils' entrances. At its junction with the science block are located the two main vertical ducts which contain most of the services.

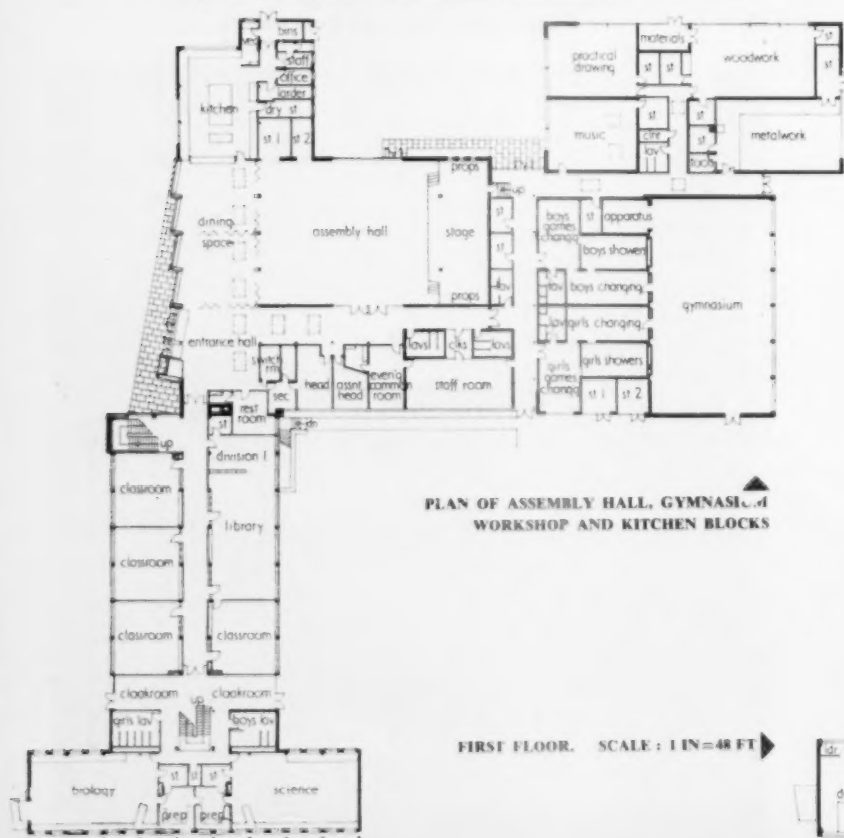
An exhibition area lit by rooflights is placed next to the assembly hall.

In order to make the available space as adaptable as possible for various uses, a series of sliding/folding doors separate the assembly hall from the dining room, which can thus be used as an extension to the hall, and the dining room itself can be converted into two classrooms, the serving hatch being used as the chalk-board.

The gymnasium block is at the rear of the assembly hall, so that dual use can be made of the changing rooms, etc. The music room can also be used as a green room, as it is close to the rear entrance of the stage.

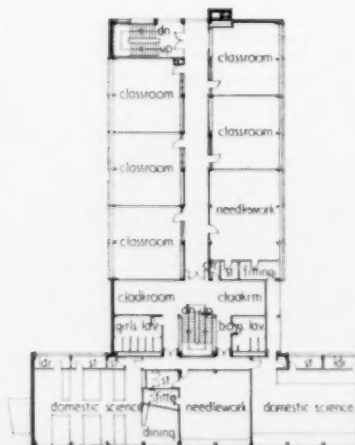
Construction—Three-storey Blocks

The construction of the two main three-storey blocks is of special interest. The columns are pre-cast prestressed members cast complete in lengths of up to about 35ft, with cut-



FIRST FLOOR. SCALE: 1 IN = 48 FT

SCHOOL AT TWICKENHAM

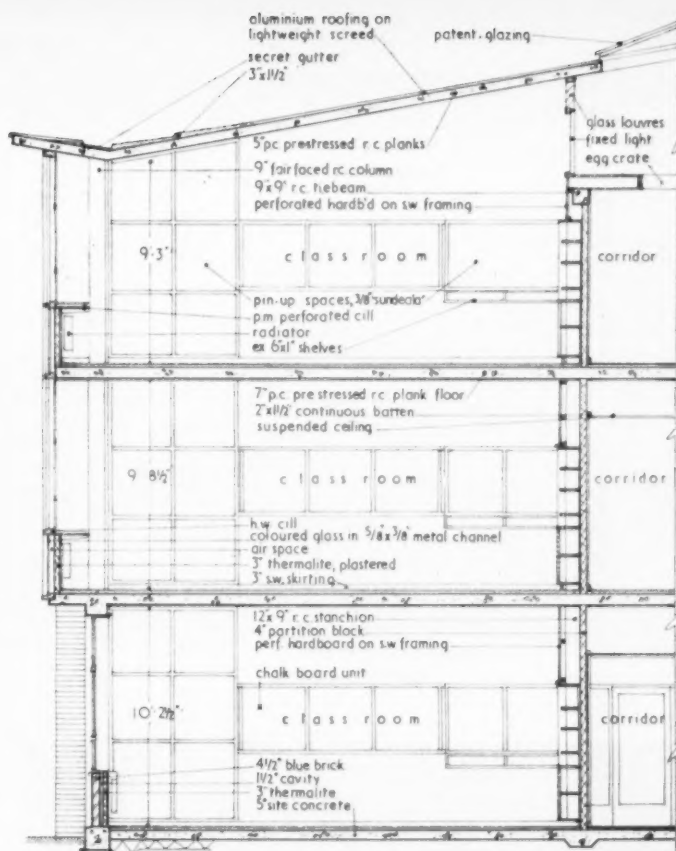


outs for beam connections, stiffened for rigidity during transport by having additional bars welded on, transported complete to the site and erected.

In the classroom block, through this method of construction, it was possible to dispense altogether with floor beams, at the expense of somewhat thicker floor slabs, and to achieve continuous flat soffits. In the science block, owing to the larger span, pre-cast prestressed beams had to be used.

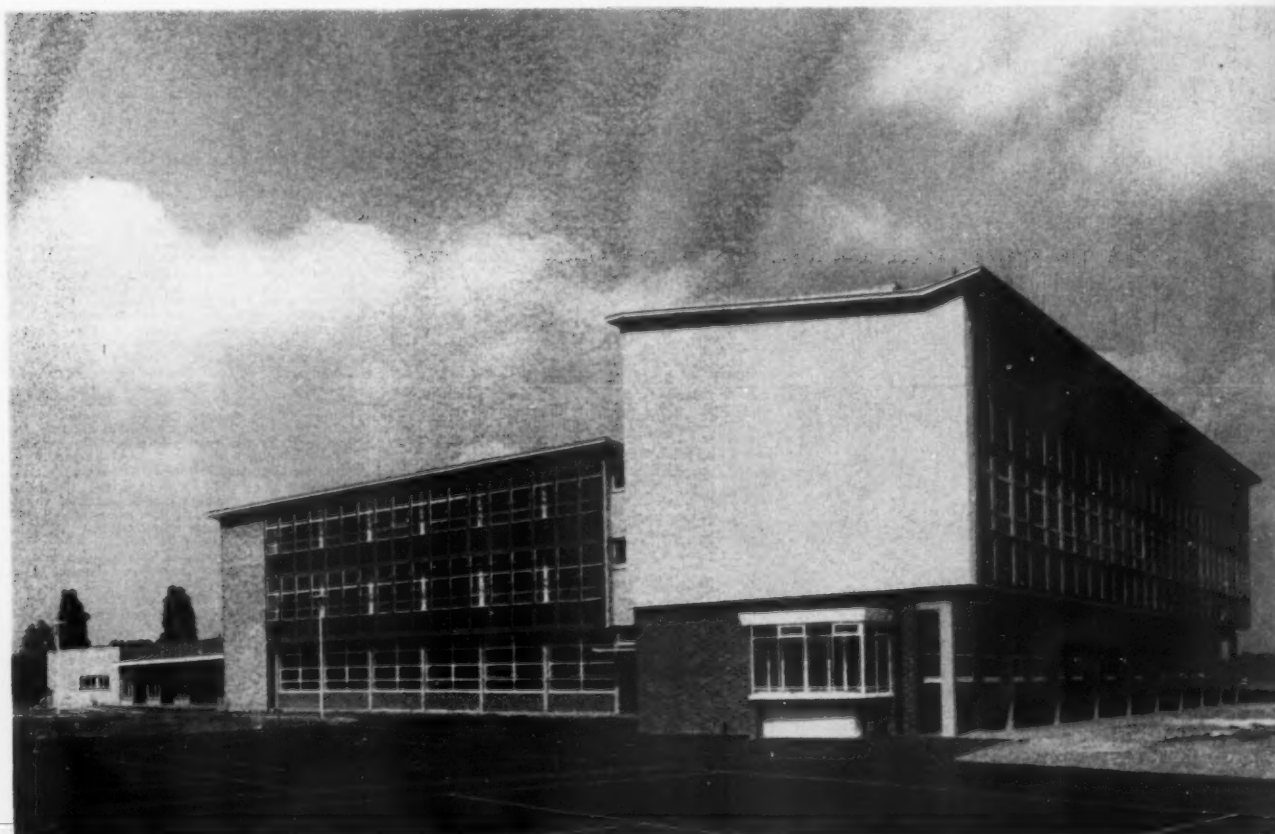
Roofing is of prestressed plank construction with structural topping, as floors, finished in commercial grade aluminium with standing seams over fibreboard insulation laid between sawn battens. The gutters are formed by inclining the overhanging eaves towards the main roof slopes and finished in mastic asphalt.

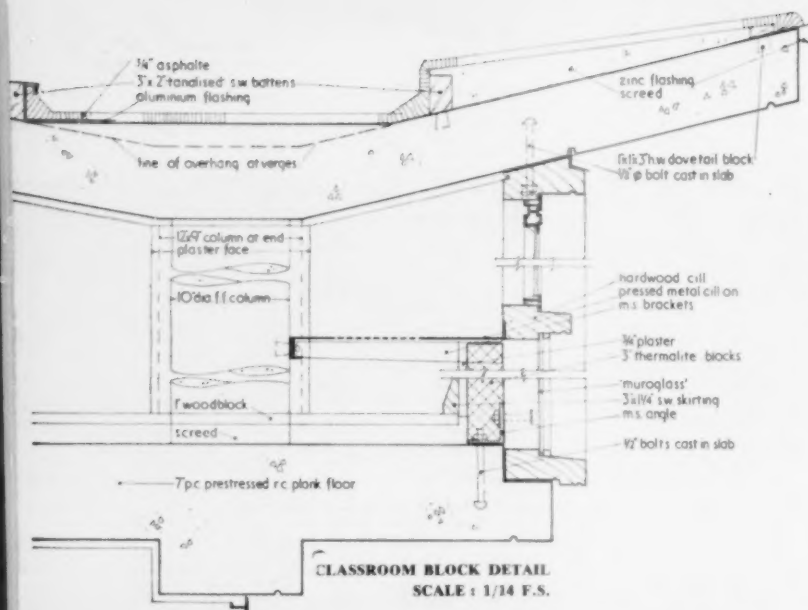
Finishing externally is facing brick-work panels under ground-floor windows, while, on upper floors a curtain-walling technique in West African mahogany is used, with metal window insets and coloured asbestos panels, with 4in Thermalite block infill up to cill height.



SECTION THROUGH CLASSROOM BLOCK. SCALE: 1 IN=8 FT

Below, a view from the girls' playing pitch. In constructing these three-storey blocks, pre-cast prestressed columns were used, obviating the necessity for floor beams, while pre-cast prestressed planks formed the roof. See detail above





Below left, detail to the classroom block. A curtain-wall technique has been used on upper floors in West African mahogany with metal window insets and coloured asbestos panels below cills. Facing bricks are used at ground-floor level. Gutters are formed by inclining the overhanging eaves

SCHOOL AT TWICKENHAM

Floors generally are of pre-cast prestressed plank construction, which did not require close shuttering, with varying thicknesses of structural topping laid *in situ*.

The remaining single-storey blocks, with the exception of the gymnasium, are of steel-framed construction, roofed similarly to the main block. The gymnasium is R.C. frame *in situ*.

Cost

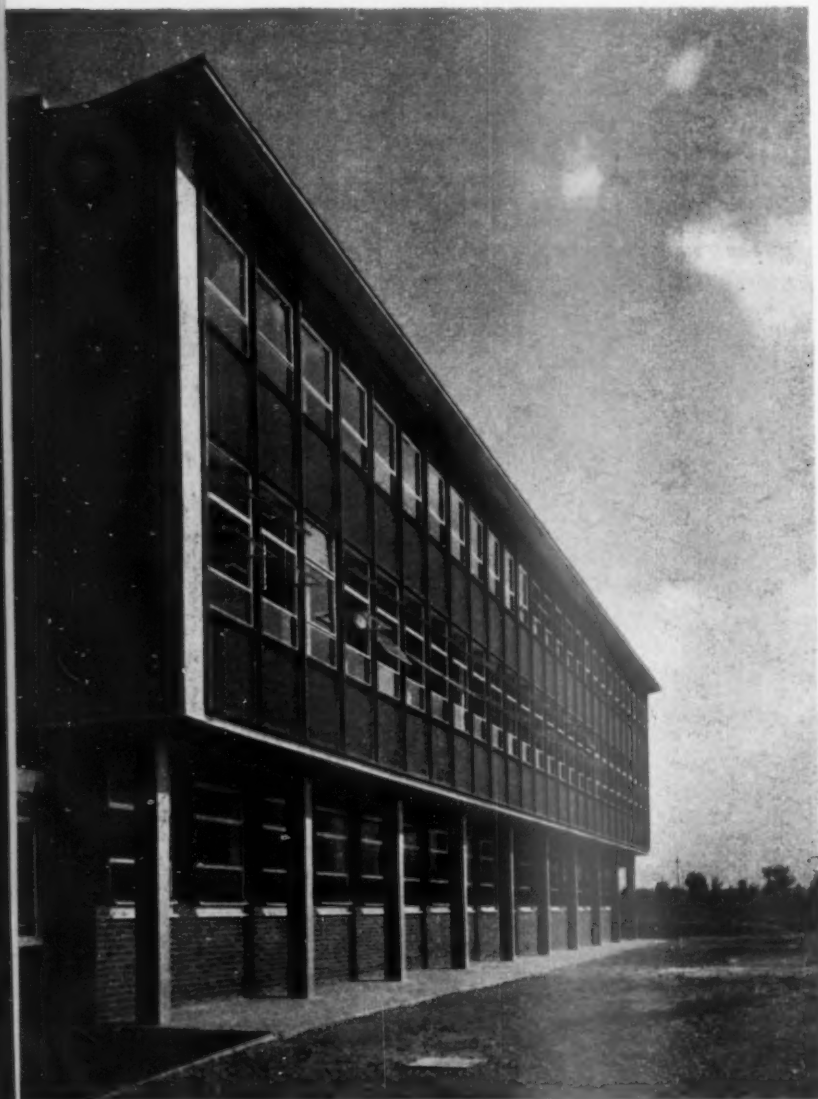
The total accommodation provided is for 600 pupils, giving an area of 74 sq ft per pupil, and the cost on tender of the project, which was completed in two years, was £204,043.

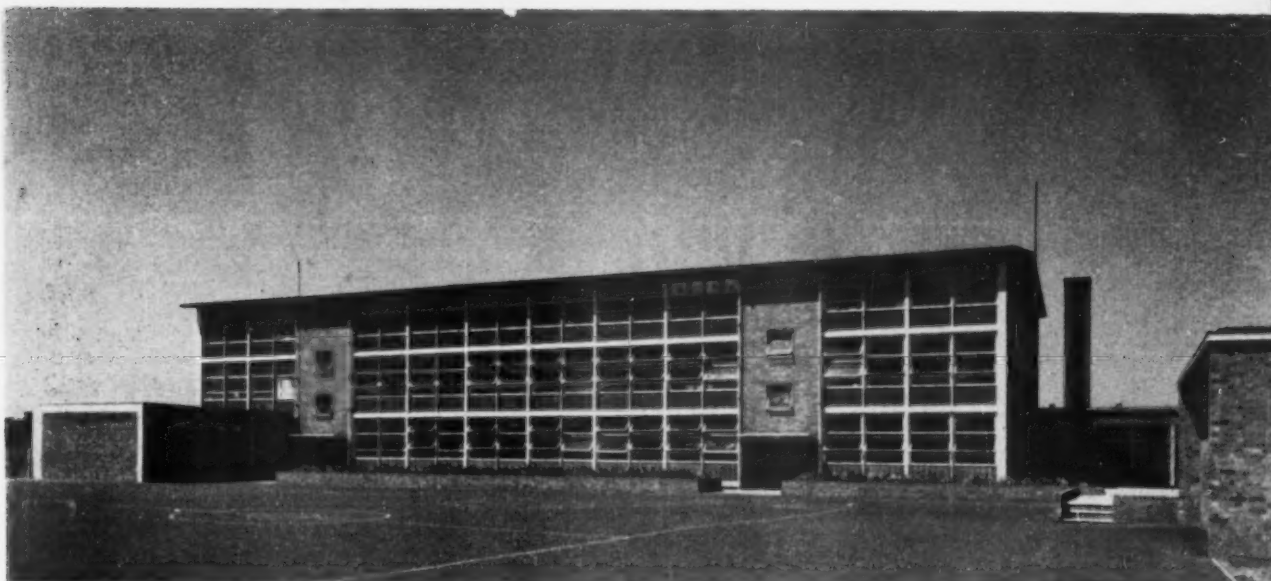
General Contractors:

WILLIAM WILLETT LTD.

Sub-contractors and suppliers:

Aluminium Roofing: Arthur Scull & Son Ltd.
Asphalt Roofing: The Natural Rock Asphalt Ltd.
Balustrades: William Pickford Ltd.
Bitumen Macadam Paving: Constable, Hart & Co. Ltd.
Bronze Grilles: G. A. Harvey & Co. (London) Ltd.
Cement Glaze: Collins (Contractors) Ltd.
Cloakroom Fittings: B. Finch & Co. Ltd.
Concrete Roof Light: J. A. King & Co. Ltd.
Cycle Stands: Alfred A. Odoni & Co. Ltd.
Electrical Installation: Watson & May.
Entrance Gates: General Constructional & Engineering Co. (Bedford) & Sons Ltd.
Facing Bricks: Henry J. Greenham (1929) Ltd.
Fireproof Door: Durasteel Ltd.
Granwood Flooring: Granwood Flooring Co. Ltd.
Greenhouse: Robert H. Hall & Co. (Kent) Ltd.
Hardwood Block and Strip Flooring: Stevens & Adams Ltd.
Ironmongery: Lockerbie & Wilkinson (Birmingham) Ltd.
Kitchen Ventilation Hoods: James Gibbons Ltd.
Laboratory Fittings: Samuel Elliott & Sons (Reading) Ltd.
Lightweight Roof Screeds: Celcon Ltd.
Mechanical Engineering Services: Comyn Ching & Co. (London) Ltd.
Metal Windows and Roof Glazing: Metal Cements Ltd.
Pre-cast and *in situ* Reinforced Concrete Floors and Roofs: Concrete Ltd.
Pitchmastic Flooring: The Natural Rock Asphalt Ltd.
Plastic Nameplates: London Name Plate Manufacturing Co. Ltd.
"Po'lite" Colour Glaze Fluted Asbestos Cement Sheets: Turners Asbestos Cement Co. Ltd.
Rod Reinforcement: The Rom River Co. Ltd.
Sanitary Fittings: J. S. & F. Folkard (London) Ltd.
Sliding Door Gear: E. Hill Aldam & Co. Ltd.
Structural Steelwork: C. & S. Construction Co. Ltd.
Suspended Ceilings: G. C. Horsburgh & Co. Ltd.
Terrazzo Sarcases: Zaneli (London) Ltd.
Terrazzo W.C. Partitions: Art Pavements & Decorations Ltd.
Vulcanized Wastes and Fittings: A. R. Hoare & Co.
Waterproof and Oil Resisting Rendering: Sealers (London) Ltd.
Wire Mesh Lockers: Arkinstall Bros. Ltd.





Classroom block from the east

FEATHERSTONE SECONDARY SCHOOL, SOUTHALL

County Architect: H. J. WHITFIELD LEWIS in succession to C. G. Stillman

Group Architect: G. J. ANDERSON

Assistant Architects: D. F. WOODMAN and L. J. FOX

Chief Quantity Surveyor: R. A. D. HILL

Electrical Engineer: H. L. HAMMOND

Consulting Engineers: G. H. BUCKLE & PARTNERS

Structural Engineers: S. H. & D. E. WHITE



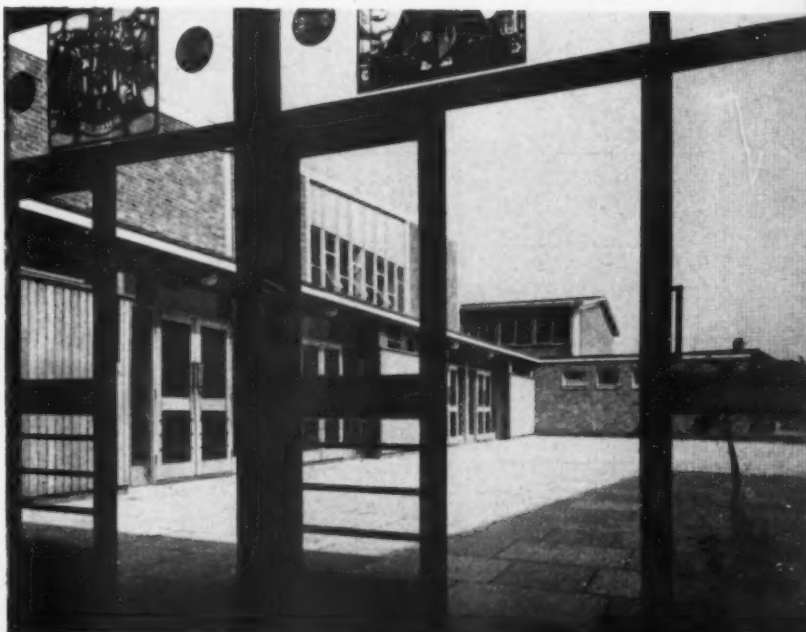
Entrance hall with assembly hall beyond

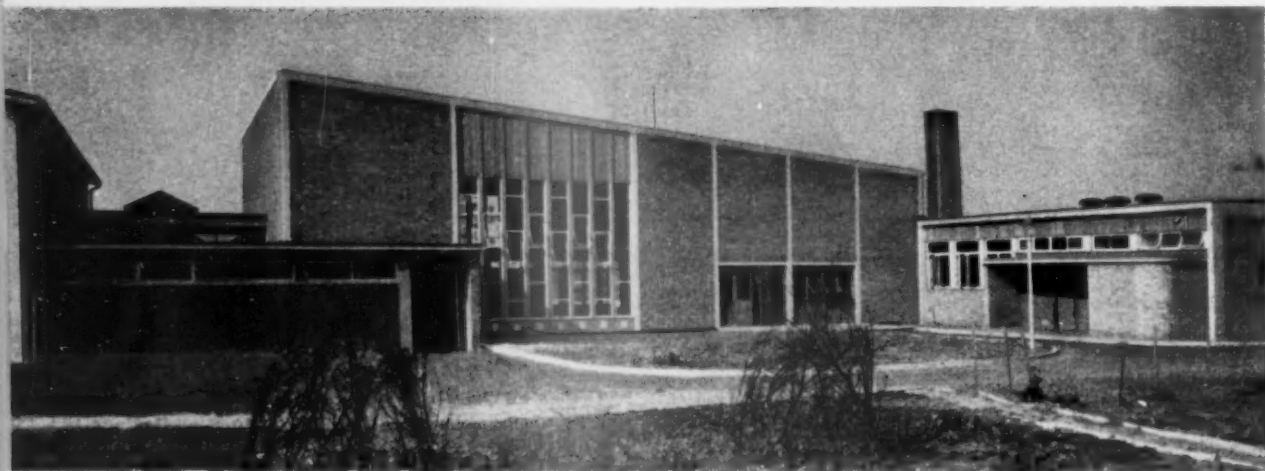
THE site for this secondary school for 600 boys consists of approximately eight acres of level, treeless land in Western Road, Southall. About four acres of the land were already in use as playing fields.

Planning

A three-storey, double-banked classroom block gives east and west light to classrooms. The science rooms, two general science rooms on the ground floor, with advanced science on the first floor, are separated from other teaching rooms by a staircase and cloakrooms.

The assembly hall is separated from the dining/small hall by sliding/folding doors, to give extra space when needed. The changing rooms, primarily for use by gymnastic and games classes, can also be used as green rooms when the hall is used for school or public performances.





Above, the assembly hall with kitchen on the right. Here again, the assembly hall may be enlarged to take in the dining hall. Changing rooms, planned behind the stage (to the left of the photo above), may also be used as a green room when the hall is used for school or public performances

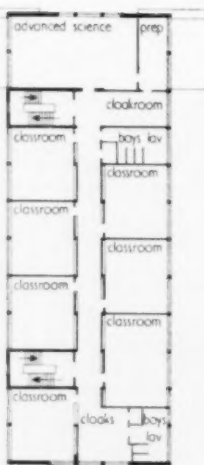
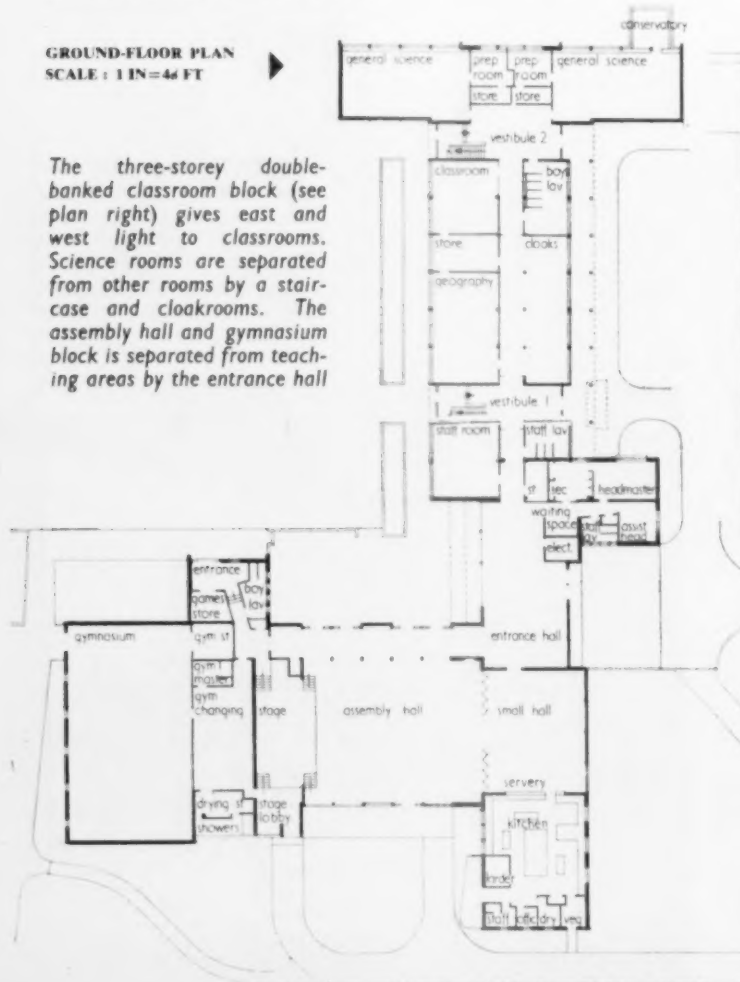
SCHOOL AT SOUTHALL



SECTION THROUGH ASSEMBLY HALL

GROUND-FLOOR PLAN
SCALE: 1 IN = 46 FT

The three-storey double-banked classroom block (see plan right) gives east and west light to classrooms. Science rooms are separated from other rooms by a staircase and cloakrooms. The assembly hall and gymnasium block is separated from teaching areas by the entrance hall

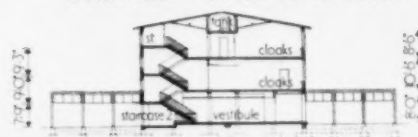


FIRST FLOOR

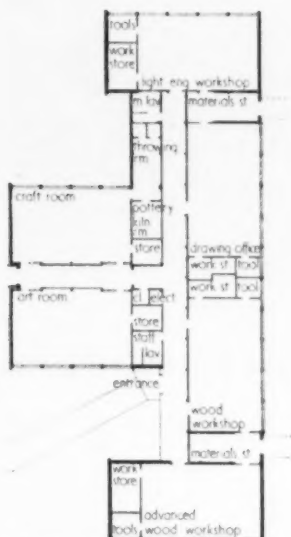
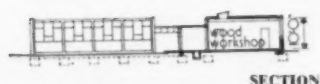


SECOND FLOOR

SECTION THROUGH CLASSROOM BLOCK



Continued from page 221



GROUND-FLOOR WORKSHOP

Below, the assembly hall. The workshop block, see plan above, was completed in advance of the main building and is entirely isolated from it



The workshop block, completed in advance of the main building, is entirely isolated from it. Rooflights, to ensure even lighting, are provided in the teaching rooms. As it is a separate block, lavatories and cloaks are also provided here for both boys and staff.

Construction

Classroom block: Reinforced concrete frame with facing bricks and "Stonite" panels under windows externally. Practical block, gymnasium and assembly hall: Light steel frames encased in concrete.

Pitched roofs to classroom block and gymnasium block, in three-layer bitumen felt roofing with granite chippings. Flat roofs are asphalt on screeded concrete slabs or woodwool. Pitched roof to assembly hall— asphalt on screeded woodwool. Vertical western red cedar boarding is used for the entrance hall, assembly hall and gymnasium blocks.

Services

Low-pressure water-heating system from oil-fired boilers. Gas water heaters over sinks in laboratories, etc.

Cost

The contract was completed in two

years, the cost being £198,762 and provided for 600 pupils, at 71 sq ft per place.

General Contractors: W. S. TRY LTD.

Sub-contractors and suppliers:

Asphalt Roofs: The Natural Rock Asphalt Co. Ltd. Bricks: E. H. Smith & Co. Cement Glaze Wall Finish: Cement Glaze Ltd. Cerebos Concrete Floor Tiling: J. H. Sankey & Sons Ltd. Chain Link Fencing: Peerless Fence & Products Ltd. Concrete Paving, Quarry Tile Paving, Terrazzo Pavings: Alan Milne Ltd. Cork Tile Flooring, Plastic Tile Flooring: R. W. Brooke & Co. Ltd. Cycle Racks: Alfred A. Odani & Co. Ltd. Electrical Installation: G. W. Franklin & Son Ltd. Expanded Metal Suspended Ceilings: Expanded Metal Co. Felt Roofing: Wm. Briggs & Sons Ltd. Glass Domed Roof Lights: T. & W. Ide Ltd. Heating, Hot Water, Ventilation, Gas and Cold Water Installations, Plumbing and Kitchen Equipment: Arthur Scull & Son Ltd. Ironmongery: Standard Range & Foundry Co. Ltd. Joinery Fittings: W. H. Gaze & Sons Ltd. Lighting Conductor: R. C. Cutting & Co. Ltd. Linoleum: Haskell, Robertson & Co. Ltd. Metal Gates and Barrier: Kingsmill Metal Co. Ltd. Metal Lockers: B. Finch & Co. Ltd. Metal Windows: Crittall Manufacturing Co. Ltd. Mild Steel Reinforcement: Rom River Co. Ltd. Patent Glazing Roof Lights: Haywards Ltd. Pitchmastic Flooring: Pilkington's Asphalt Co. Ltd. Pre-cast Reinforced Lightweight Roof Slabs: Celcon Ltd. Reinforced Concrete Structure: Formcrete Ltd. Roller Shutters: G. C. Thornborough & Son (Manchester) Ltd. Sanitary Fittings: T. A. Harris Ltd. Sliding Door Gear: E. Hill Aldam & Co. Ltd. Stage Curtain Track: Hall Stage Equipment Ltd. Structural Steelwork (Main Building and Boiler House): Boulton & Paul Ltd. Structural Steelwork (Workshop Block): Dawneys Ltd. Suspended Ceilings, Acoustic Tiling: Sundesala Board Co. Ltd. Tarmac Roads and Paths: Constable, Hart & Co. Ltd. Terrazzo Partitions: Art Pavements & Decorations Ltd. Vulcathene Wastes: A. R. Hoare & Co. Ltd. Waterproof Renderings: Quickset Water Sealers Ltd. Wood Block Flooring, Strip Flooring: Vigers Bros. Ltd.



FLEURS AVENUE SECONDARY SCHOOL, GLASGOW

Architects: KEPPIE, HENDERSON and Partners



THIS comprehensive senior secondary school is designed for the City of Glasgow, and will provide accommodation for 1,350 girls and boys. The cost limit for the school building is 66s per sq ft.

Site

The site lies in an angle formed by a railway junction and is on the perimeter of the residential area of Dumbreck. This is a quiet backwater of "well-to-do" Victorian stone-built houses set among trees and well-kept gardens.

Because of the possible subsidence due to old mine workings, over three-quarters of the site is unfit for building on. The remaining safe area is at the north end of the site and is quite steeply contoured to form a small hillock.

Planning

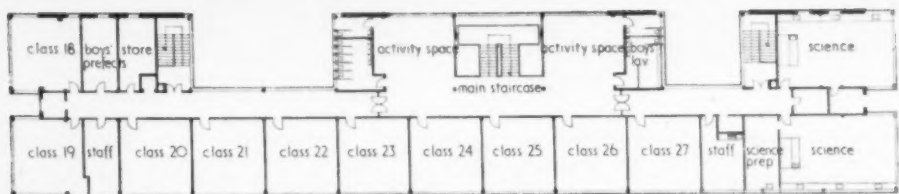
Since the main railway line from Glasgow to the Ayrshire coast is

immediately to the north of the building area the problem of airborne noise from passing trains had to be allowed for. This has been done by housing the bulk of the teaching space in a four-storey block set as far away as possible from the railway and facing away from it. The rest of the accommodation which includes the more active areas is planned round a central garden court and this whole block is protected from railway noises by a baffle wall forming the north elevation.

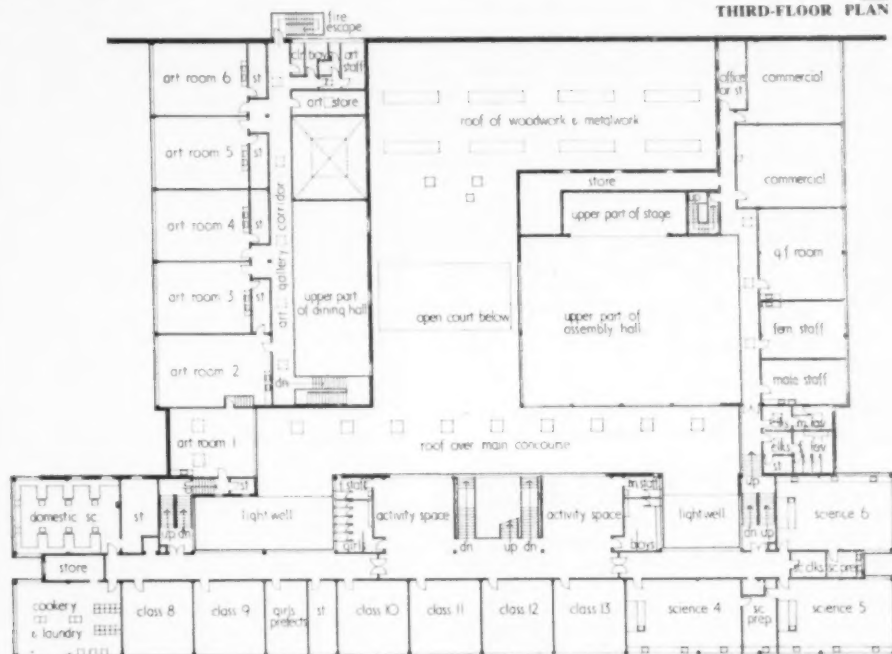
It is hoped that by planting tall trees along the northern boundary of the site a further cushion against noise may be formed.

No doubt there will be a certain amount of ground vibration transmitted from the railway cutting to the building by way of the rock strata but this will be combatted by special sound insulation treatment within the structure.

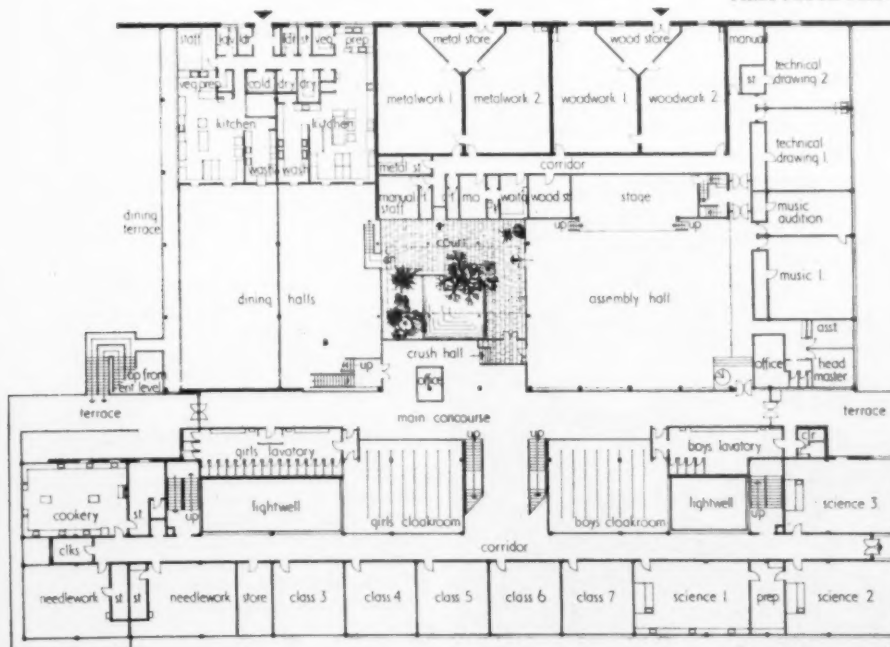




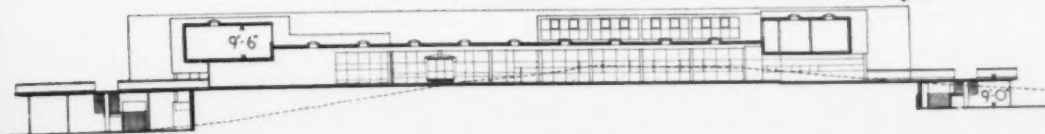
THIRD-FLOOR PLAN



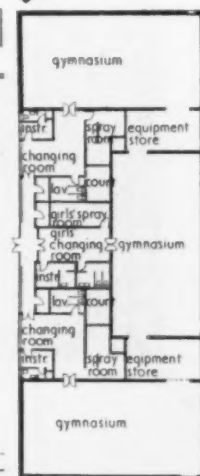
FIRST-FLOOR PLAN

GROUND-FLOOR PLAN
SCALE: 1 IN = 40 FT

CROSS SECTION



The structural frame is pre-cast concrete columns and beams with prestressed concrete floor and roof slabs. To avoid the risk of differential settlement occurring between those parts of the building founded on rock and those parts founded on clay, it was decided at an early stage to take all loads down to the rock. This involves the construction of a ground frame using concrete piers and piles with reinforced concrete ground beams spanning between them. Perimeter coping and dado beams are faced with pre-cast terrazzo slabs in white and two tones of grey. Blank walls facing the railway have pre-cast concrete slabs faced with large pebbles; there is a plinth of 2in rustic facing bricks

GYMNASIUM
BLOCK

Industrial Notes

● This year's Mechanical Handling Exhibition will occupy over 500,000 sq ft at Earls Court, London, from May 3 to 13 and present enquiries from prospective visitors indicate that buyers from over 80 countries will tour the exhibition during its ten-day run. A special symposium of films is being planned in order to cover some of the larger mechanical handling installations which are too vast to bring into Earls Court. This programme will be divided into two sections, showing general films on mechanical handling and exhibitors' own films depicting their equipment in use. Full information can be obtained from the organizer, MECHANICAL HANDLING, Dorset House, Stamford Street, London, S.E.1.

● The telephone number of Croxton & Garry Ltd., makers of Protexulate insulating material (see New Products, 6/1/60), has been changed to Kingston 9444.

● The makers of Sealocrete claim that concreting can be carried out even if there is 25 deg of frost. This can be achieved by adding Sealocrete Double Strength Premix to the mix. This liquid product has a two-fold effect in that it generates heat in its reaction with cement and accelerates the set. It is further claimed that the mix is more plastic and that the resultant finish will be harder and

more resistant to oils and water penetration than an ordinary water-gauged mix.

● A merger has taken place between Durapipe & Fittings Ltd., manufacturers of thermoplastic rigid pipe and fittings, and the Plastic Division of H. Incedon & Co. Ltd. Both companies are in the Incedon & Lamberts Ltd. group and the integration has been arranged with the object of increasing efficiency and improving the service to customers. The combined organization now operates from Winnock Road, West Drayton, Middlesex (telephone: West Drayton 3631). The new organization goes under the name of Durapipe & Fittings Ltd. and has depots at Leicester and Glasgow.

● Mr. J. R. Gunn has been appointed a director of The British Plaster Board (Holdings) Ltd.

● In addition to the new appointments mentioned last week, Mr. Basil James, chief executive (sales) of Reynolds T. I. Aluminium Ltd., is now director of sales, with responsibility for the sales, publicity and marketing organizations. Mr. J. Salter, director and general production manager of the British Aluminium Co. Ltd., is now director of engineering with responsibility for civil, mechanical and electrical en-

gineering and building work at U.K. and overseas establishments. Mr. Paul R. McGehee, chief executive (production), Reynolds T. I. Aluminium Ltd., is now director of production (manufactured products) with responsibility for operations at the company's mills and associated establishments. Mr. W. B. C. Perrycoste, director and general production manager of the British Aluminium Co. Ltd., is now director of production (primary products) with responsibility for mining, alumina production and aluminium smelting operations at U.K. and overseas establishments.

● Mr. E. Jackson has retired from his position as London manager of Erskine, Heap & Co. Ltd., but retains his directorship of the company. He has been succeeded as London manager by Mr. E. W. Batho.

● Mr. Grenville Naylor has joined the board of British Overseas Engineering Construction Corporation Ltd., one of the Taylor Woodrow Group of companies.

● Taylor Woodrow (Building Exports) Ltd. have been awarded a contract for the provision of a secondary technical school at Port Harcourt, Nigeria. The contract is worth approximately £38,000 and 19 Arcon Roof buildings are being supplied.

● Mr. A. E. Osborne, London office manager of McCall & Co. (Sheffield) Ltd., has been appointed a director of the subsidiary company, McCall's Macalloy Ltd.

● Floor Treatments Ltd. show a net profit for the year ended September 30, 1959, of £41,209 after providing for taxation. This compares with the previous year's result of £34,176.

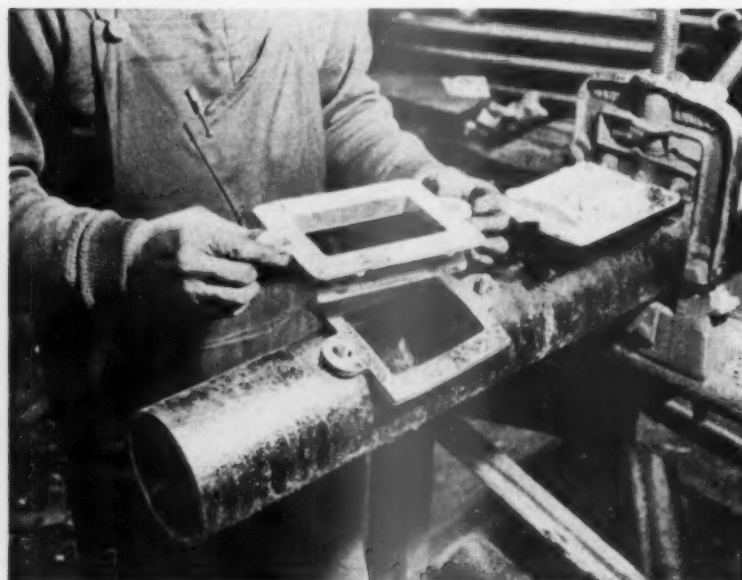
● Ekco Heating have reduced the price of their Minora 2kW low-level wall-mounting electric fire from £5 13s 8d to £4 8s 7d, including purchase tax.

● As a result of improvements in the turnover, profits and general overall efficiency of Staffordshire Potteries (Holdings) Ltd., an interim dividend of 2½ per cent for the current year has been announced.

● A reception given recently at the Building Centre, Store Street, London, W.C.2, by Nevill Long & Co. (Boards) Ltd., marked the official opening of the company's permanent exhibit at the Centre. The opening ceremony was performed by Mr. W. A. Horrocks, senior trade commissioner for South Africa.

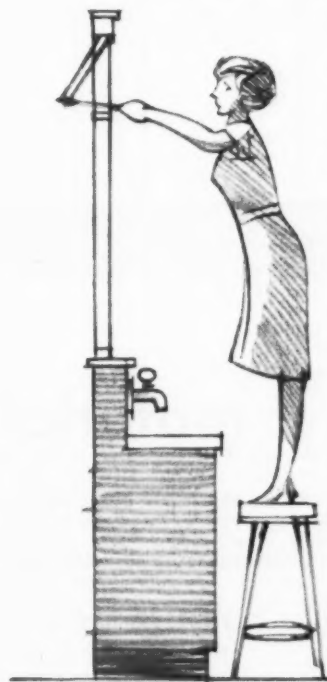
● Mr. C. W. Hamilton, managing director of McCall & Co. (Sheffield) Ltd., and McCall's Macalloy Ltd., has been elected president of the Prestressed Concrete Development Group for the year.

The Key-Conex system of single stack drainage has been installed in 52 maisonnettes at King Street, Salford. Our picture shows a Key-Conex access door being fitted on site. The time taken for installing a 40ft stack, serving two maisonnettes on four floors, averages slightly under four hours



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Architects are cordially invited to visit the new exhibit at our London Showroom, 17 Berners Street, W.1 (opposite Sanderson's Wallpapers)

HENRY HOPE & SONS LTD

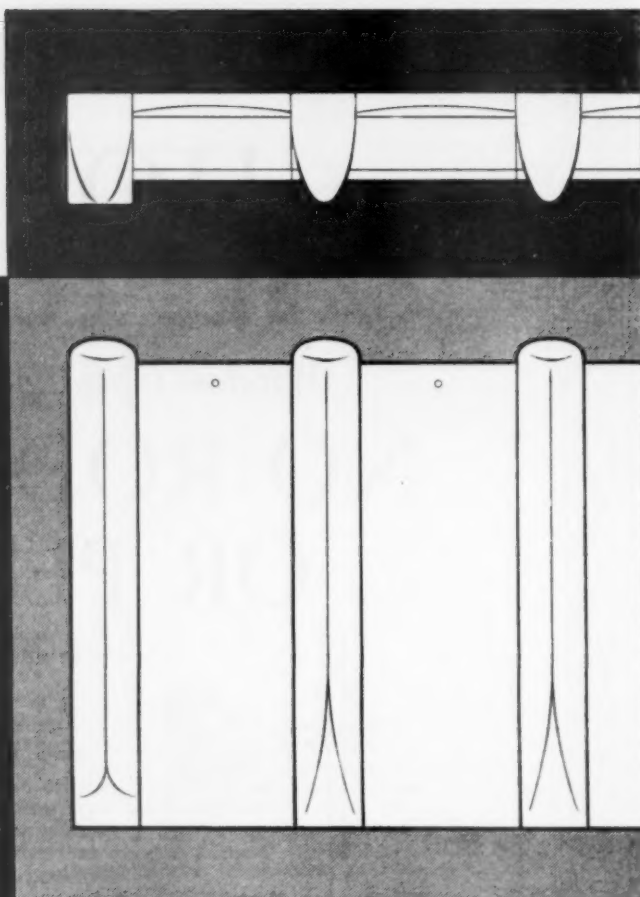
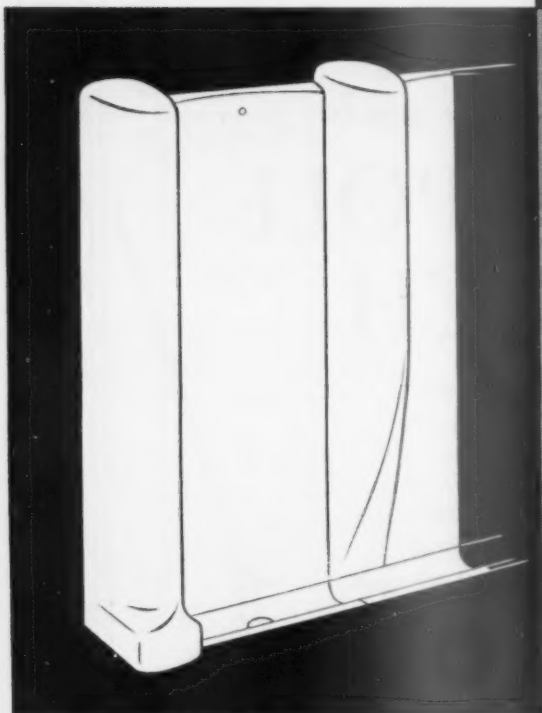
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Information Digest

OFFICIAL PUBLICATIONS

- **British Standard Specifications**, from British Standards Institution, British Standards House, 2 Park Street, London, W.1. Telephone: MAYfair 9000.

B.S. 3176: 1959. Printed Matter and Stationery. "A" and "B" Series of Trimmed Sizes. Price 4s, plus postage.

C.P. 115: 1959. Structural Use of Prestressed Concrete in Buildings. Price 8s 6d, plus postage.

B.S. 3176 marks another step in the rationalization of paper sizes. It brings the U.K. into line with continental, and, in fact, international, usage but its implementation is likely to be tardy. The B.S.I. has, for some time now, issued all its publications in "A" sizes and many advertisers are coming into line, as are some of the paper makers. The "A" range runs from AO (841 by 1,189 mm) to A10 (26 by 37 mm) in ten sizes, each a bare half of the next size up. That this is no whim is indicated by their adoption by the Government departments, including the Post Office, so inevitably the existing stock sizes must become obsolescent. The A4 size (the size of the A.& B.N.) must in time supersede both quarto and foolscap, but A5 (approximately 5½in by 8½in) is likely to be popular. Whether AO at about 33in by 46in will supersede double elephant and antiquarian seems doubtful, in that a drawing depth of 33in fits no existing standard board and may be an uncomfortable stretch for the draughtsman, while 33in by 23in is not much more useful than imperial.

The "B" series has been produced to allow of sizes intermediate with the "A" series. The "B" series runs from BO (1,000 by 1,414 mm)—roughly 39in by 55in—to B10 (31 by 44 mm), of which B1 comes very close to double elephant.

Not all publications claiming to be A sizes are cut accurately, but are really approximations cut from existing stock and manufacturing sizes. "Large post", for example, at 22in by 19in, can be cut to 11in by 8½in, which may pass for A4 as a temporary measure.

C.P. 115 is a companion Code to C.P. 114, which is concerned with normal reinforced concrete. It is a 44-page production and is designed to outline good practice in strength design relying on quality control, resulting in uniformity in the concrete. Values are given for calculating losses of prestress in the design of beams, slabs, columns and continuous construction. Guidance is given on the use of secondary reinforcement and on fire resistance of beams and slabs. Clearly this is a most important standard, which has been prepared by a committee appointed for the Council for Codes of Practice by the Institution of Structural Engineers.

- **A Study of Alternative Methods of House Construction.** National Building Studies Special Report, No. 30. D.S.I.R. H.M. Stationery Office. Price 7s 6d, plus postage.

Four forms of construction, using as far as was practical a standard plan, were employed to examine the economics of these and to compare the cost of traditional construction with various forms of prefabrication. Traditional houses were fitted with standard windows, doors and frames, etc., in the usual way, as were the houses of less orthodox construction.

In all 412 houses were built, on five sites. Of these 180 were in traditional construction, but the original intention of having examples of each type built on each of the five sites had to be abandoned. Traditional houses were built on all sites, but only one site had all types of construction, 30 of each being built. The sites were deliberately well distributed, being in Yorkshire, Warwick-

shire, Northamptonshire, Bedfordshire and Sussex. An unusual feature was that the contract documents included erection schedules intended to guide the tenderers to the best sequence of operations. These were based on study of each by the B.R.S. Tenderers also had the opportunity of discussing any points of an unusual nature before tendering. Houses having traditional components were markedly cheaper at tender stage than those having unfamiliar features. The B.R.S. were authorized to take records at all stages of construction and to advise on procedure.

The results are set out in detail in this study and repay rather laborious examination, as the snags of prefabrication, together with its advantages, are well brought out. Some work of a traditional nature was unavoidable in prefabricated building and, although the amount in area or material might be small, the cost in time and consequently in money was sometimes very heavy. Where pre-cast plaster inner skins or linings were used, traditional plastering had to be admitted on party walls, returns and window reveals, but the cost of bringing in wet plastering for such small jobs was very heavy.

The houses were semi-detached and were not planned on a 2ft internal grid. The first point is that brick walls were necessary and the second point is that a good deal of cutting of plasterboard had to be done, requiring much labour to the joints. Since this study the B.R.S. have evolved the technique of applying plasterboard to brickwork, which would have saved much wet plastering time, but this in turn would have increased the cost of making good to cut panels.

The results are given in Chapter 4—Summary and Conclusions—which reiterates the wastage resulting from lack of continuity in wet plastering in non-traditional interiors. As to block walls compared with brick walls, the conclusion reached was that there was no appreciable saving, but had a suitable self-faced block been available there could have been a saving. Where partitions are concerned, gypsum plaster panels and stud-framed plasterboard panels both proved more expensive than clinker block plastered two sides. One type had factory-made floor panels for first-floor level, but these were uneconomic, partly because of fire resistance demands. Trussed rafter and trussed purlin roofs were also more expensive than traditional framing, but clearly had advantages where no internal support was available. Doors were supplied ready hung in their frames, but this too proved unsatisfactory, as the doors often had to be rehung. Prefabricated plumbing did not compete with site plumbing: the suggestion is made that, where repetition is possible, the first two houses should have the plumbing site fabricated and the parts used as jigs or patterns for factory production of the plumbing for the rest of the contract. The most shattering comparison was in Type 4, where the cost of materials supplied to the site was equal to the whole cost of the superstructure of the traditional house type.

The study does not denigrate prefabrication as a principle of construction, but holds that much closer study must be made so that full advantage is taken of the processes and that quantity production must also be ensured.

- **Permanent Moisture Expansion of Clay Products. I.** Division of Building Research Technical Paper No. 6. Commonwealth Scientific and Industrial Research Organization, Australia.

Once again we have an outstanding study and in this case of a subject which appears to break new ground. The kernel of the matter is that there is evidence that baked clay commences expanding from the moment it leaves the kiln and does not cease while moisture can reach it. This thesis has been the subject of a number of papers since 1926, but was not considered a very important

Information Digest (continued)

matter until the Commonwealth Organization, prompted by a realization of the potential dangers to structures, began this study.

It is devoted to bricks so it may be expected that similar studies will follow on floor tiles and other clay products. Three trial walls were built in parallel lines on sliding planes and precise measurements were taken periodically at a number of points in the height of 2ft 6in of each wall, which was 63ft 3in long. The bricks used varied in quality, as did the mortar, but each wall had its characteristic material so that comparisons could be made. Photographs reproduced show the expansion which took place in twelve months, which amounted to 0.9in. The materials were "kiln-fresh" bricks (i.e., they had not been allowed to weather before being used) in cement mortar 1:3. Details as to chemical composition of all bricks used are given.

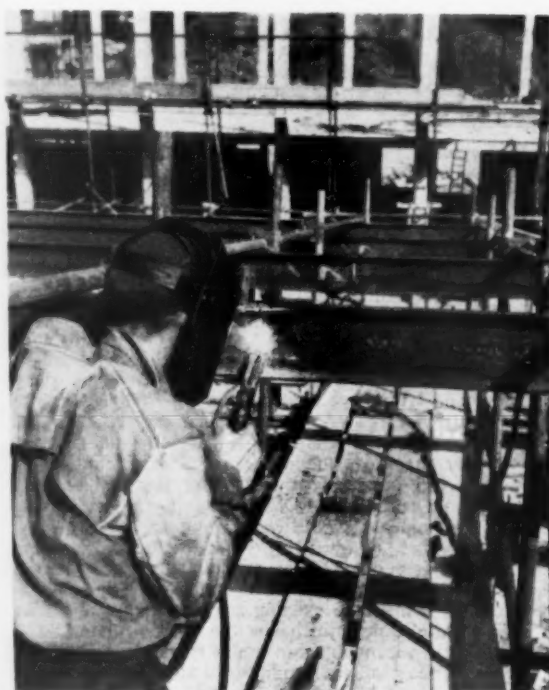
Various experiments were made with batches of bricks in laboratory tests, including autoclaving, but none gave such positive, reliable results as the test walls. One test showed that bricks standing in air for five years are still expanding at the rate of 0.006 per cent, per year. There appears to be no limit in time to the expansion of the bricks, yet the reason is not known. Photographs of old buildings show serious cracking at corners and oversailing of plinths simply due to continuous expansion. It is argued that this is not due to the causes we, in the U.K., would ordinarily give—expansion in warm weather not recovered in cold weather because the friction on the bed joints is too great. Where that happens the perpend usually show that movement has taken place so this study may provide the solution to the puzzle of a certain wall built in 1890 in Coronets in the King's Cross area which has been expanding so much that every other year a wooden gate at its end has to be eased.

This study causes one to read again B.R.S. Digest, No. 114, where cracking in brickwork is discussed. The B.R.S. say that "as far as is known, the expansion (after initial wetting) does not recur", which suggests that an investigation on the same lines as that of the Commonwealth Organization—or liaison with it—might produce further useful data.

- **Annual Report of the Scientific Adviser for 1958.** London County Council. Price 1s 3d, plus postage.

The range of interests of the scientific adviser is very great. Air pollution from smoke shows a slight improvement over the past two years and increasing interest is being taken in this as the Clean Air Act takes effect. Pollution of the atmosphere in Thames tunnels was also examined and found to be unpleasantly high, made much worse by the odd vehicle running with badly adjusted injectors or carburettors. Radioactive fallout was increased during the spring and autumn of 1958. Sewage and waste disposal are referred to both as to the use of radio-isotopes and the efficiency of sewage plant. The former, where used in industrial processes, can exceed the permissible limits in discharges to sewers while, in the latter, the flow through a sedimentation tank was much improved by the evidence provided by trace elements.

Paints came in for severe criticism—or rather the manufacturers did. A lamentably large number of substitutions were made, where the paint supplied by a maker fell in quality well below not only the sample, but also the basic specification. A number of makers not previously on the L.C.C. list submitted brands for approval. Of these, 13 hard gloss, Grade A paints were approved and 34 rejected. Of emulsion Grade A paints offered, 24 were approved and 27 rejected. Some of the rejections are due to manufacturers offering cheaper brands than those already approved of their own make. Low opacity in hard gloss paint accounted for 35 per cent of the rejections.



Fabrication of all the steelwork for the new civil engineering block for Birmingham University, an unusual type of portal frame structure, was undertaken by Hoveringham & Co. Ltd. English Electric welding electrodes and equipment were used exclusively and our picture shows the butt welding of a portal frame purlin on site using Vohees electrodes

Floor polishes also show a poor record. Progressive deterioration in quality of an approved make was observed, resulting in the cancellation of the contract. The private architect relies, as do the bulk of public authorities, on the integrity of the manufacturers: What can the poor architect do when faced with reports such as these?

- **Polyvinyl Acetate as an Aid in Plastering.** Commonwealth Scientific and Industrial Research Organisation, Australia.

This is a reprint from the Australian journal, *Building and Decorating Materials*. In the U.K., plastics bonders are now commonly used where insufficient key for plastering is provided by the base but the point in this article is that a simple brush coat seems to be all that is needed. The research work of H. J. Larsen and G. G. Groome, of the United States, is quoted in which a surface painted with an emulsion of P.V.A. and allowed to dry, permitted plastering over at any time. It seems that on applying the plaster the water partly re-emulsifies the P.V.A. which becomes incorporated into the plaster. Trials have proved its effectiveness on glass, glazed tiles and gloss painted wood. A cement and sand mix adheres well and no great difficulty was experienced in plastering vertical surfaces, but the lack of suction made for slower work. There is no risk that the plaster or render coat will part from the P.V.A. but if the P.V.A. is applied to a gloss painted surface the strength of key is that of the gloss paint to its base and not the P.V.A. to the gloss paint. One brush coat of P.V.A. is said to be sufficient, but on absorbent surfaces more may be needed. P.V.A. emulsions differ considerably and only some of these are suitable for this use.

Take **ASTOS** the dampcourse

—for permanence, for a toughness that withstands vibration and normal foundation settlement, for easy identification on site. ASTOS, Standard or lead-lined, the original asbestos/bitumen dampcourse, complies with the British Standard requirements (B.S. No. 743, 1951). 24 ft. rolls, in wall widths up to 36 in. Standard (Type 5C) 7-lb. per sq. yd. Lead-lined (Type 5F) 9½-lb. per sq. yd.

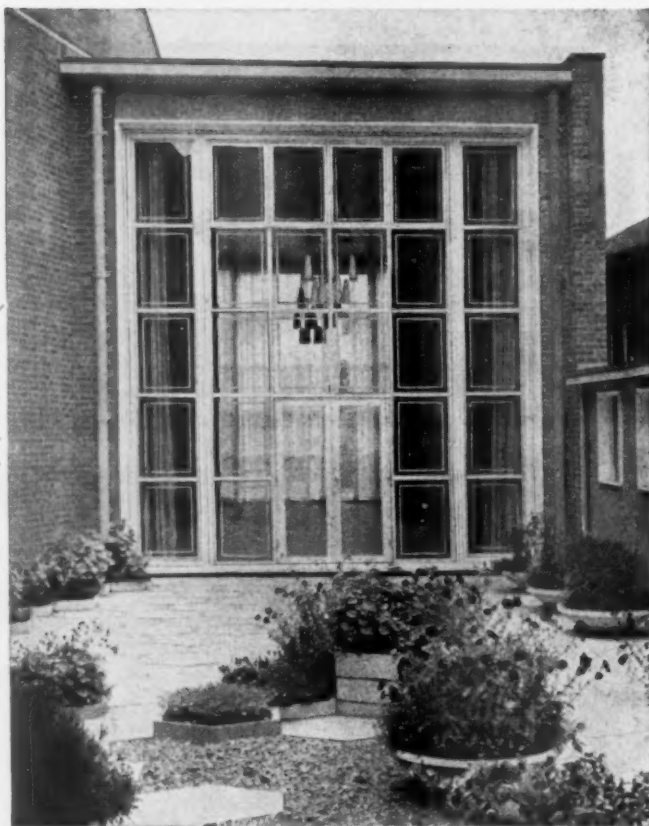


Take Zylex Slaters' Felt as a secondary roof under tiles or slates, to prevent damage due to roof defects, to reduce heat loss. Reinforced Zylex for open rafters, Standard for boarded roofs, and Aluminium Foil Surfaced for even greater reduction of heat loss.
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Photograph by courtesy of Henry Hope & Sons Ltd.
G. R. Barnsley, F.R.I.B.A., County Architect, Warwick.

...now here's where Birmetals come in''



Entrances such as this one, which graces the new Council Chamber at the Shire Hall, Warwick, typify the modern architectural trend towards light alloy section. Glazing bars of aluminium alloy have a long and trouble-free life because they cannot warp, shrink or swell, and need only a minimum of maintenance.

Birmetals aluminium alloy extruded sections can be seen framing windows and doorways in architectural showpieces all over the world.

Birmetals

BIRMETALS LIMITED • WOODGATE WORKS • BIRMINGHAM 32

Information Digest (continued)

TRADE ASSOCIATION PUBLICATIONS

- **The Structural Glued Laminated Timber Industry in North America.** Information Bulletin E/18/4. Timber Development Association Ltd., 21 College Hill, London, E.C.4. Price 10s 0d.

December's "Information Digest" referred to the T.D.A. report on the "glulam" industry in Europe. This companion work reviews the materials, methods, organization and machinery in the U.S. and Canada, and very impressive it is!

Eight establishments were visited by the T.D.A. reporter, W. A. Chugg, the labour force ranging from 30 to 1,000. A remarkable similarity in layout and plant was observed, possibly because of a common training establishment having provided the staffs of a number of glulam specialists.

Factories are temperature controlled between 60 and 70 deg F and as timber stock is received it is kept in this temperature range for 48 hours. The stock is presumably in battens, not baulks. The moisture content when used is $12\frac{1}{2}$ per cent \pm $2\frac{1}{2}$ per cent. While timber is supplied graded, re-grading is sometimes worth while in producing a greater range, the best grade being kept for higher stressed parts and the low grade boards for the core. Board lengths are not stated but by scarfing, using dowels for locating the cut ends, any lengths can be obtained. Laminations are planed to a smooth finish before gluing, sanding being prohibited. Douglas fir is the most commonly used wood. Resorcinol and casein adhesives are preferred to urea, which has been found to damage the wood fibres.

The jigs used for forming laminated members are much larger than are used in the U.K. generally but this is the result of the practice of gluing a number of units simultaneously in multiple production.

In the U.S., three grades of finish are offered, being Industrial, Architectural and Premium. Many firms wrap the units before dispatch in bituminized paper or polythene and special care is given to the protection of polished surfaces.

The report is well illustrated to explain the layouts described, the methods of setting up jigs and details of plant.

- **Mastic Asphalte on Light-Weight Materials.** Technical Information Sheet No. 3/59. The Natural Asphalte Mine-Owners and Manufacturers Council, 14 Howick Place, Victoria Street, London, S.W.1. Telephone: VICTORIA 1600.

The light-weight materials considered in this pamphlet are Stramit and woodwool. Stramit is shown used as decking to wood joist flat roofs, the Stramit to be roofing quality (bitumen impregnated surface) and where bearing on brickwork to be bedded on bitumen—presumably hot, roofing quality but there is no specification given. Joints in the Stramit must be taped, although the whole surface is to be covered with sheathing felt to B.S. 747, type 4A(i). The felt is to be carried over arris fillets and two-coat $\frac{3}{4}$ in asphalt is then laid.

Where woodwool is used, here too it is recommended that the slabs be bedded, where on brickwork, on bitumen and no reference is made to the more normal practice of bedding on 1:1:6 mortar. Where the slabs are supported by wood joists, it is recommended that a screed of 1in thickness cement and sand 1:3 reinforced with metal mesh to B.S. 1369, weighing at least 3lb yd, be laid. This in turn is to be covered with sheathing felt and two-coat $\frac{3}{4}$ in asphalt. Where the roof construction is of concrete, the woodwool would have the function of an insulator. It is then to be bedded all over on bitumen on the screed



Pyrestos Insulation board was used for the ceilings in the canteen and dining hall sections of a new junior school, the Prettygates School, at Colchester, Essex. Pyrestos is obtainable from Board Processors Ltd. in widths of 4ft and 2ft and in most standard lengths up to 12ft by thicknesses of $\frac{1}{8}$ in ($\frac{1}{2}$ in full), $\frac{1}{4}$ in ($\frac{3}{4}$ in full) and $\frac{3}{8}$ in ($1\frac{1}{2}$ in full)

for falls (presumably as a vapour barrier). A less elaborate top treatment is then acceptable in which the open texture of the woodwool is to be grouted with a slurry of cement and sand 1:3, or other form of filler. Again sheathing felt is used and two-coat $\frac{3}{4}$ in asphalt.

A warning is given that no undue loading should be allowed on lightweight roofs. This needs emphasizing on all jobs, for it is all too often forgotten that ladder feet and similar point loads can do considerable damage to roofings.

TRADE PUBLICATIONS

- **Aluminium Heavy End Pipes.** Reynolds T.I. Aluminium Ltd., 10 Buckingham Place, London, S.W.1. Telephone: VICTORIA 0902.

Instead of having tubes of uniform internal and external diameter, which can be cut to random lengths and threaded for joints, Reynolds T.I. have produced these tubes where the general wall thickness is no more than is needed for the load requirements but, where threading or coupling is needed, the wall thickness is much increased. This restricts the freedom to cut pipes *ad lib.* but in long runs should save on material.

The smallest general diameter available is $1\frac{1}{2}$ in, reduced in the "internal heavy end type" by the increased wall thickness which can be obtained from 1in in length to 4in according to choice, the "external heavy ends" having the same range. The lengths in which the pipes are available are from 6ft to 20ft, while internal diameters up to 10 $\frac{1}{2}$ in are offered. Another pamphlet "Fact Sheet: Heavy End Pipes" gives more detailed information.

Information Digest (continued)

- **Robertson Q-Air Floor.** Robertson Thain Ltd., Ellesmere Port, Cheshire. Telephone: Ellesmere Port 3622.

Since the Q-Floor was noticed in these columns in March, 1957, on its introduction, further progress has been made in the useful employment of the shallow channel formation of the floor panels. The latest is called the Q-Air Floor, in which the floor channels, laid face to face, form ducts which, in addition to forming ways for services, can also be used as air ducts. As the channels would normally allow of air distribution along one axis only, Robertson Thain supply "cross-under" steel ducts which, having their axes at right-angles to the floor channels, can receive air from floor channels and transmit it to ventilating grilles or diffusers by means of matching openings cut in the floor channels and cross-under ducts. Baffle plates are inserted in the floor channels beyond the transfer ports to seal them.

- **Modernfold Expanding Walls and Doors.** Home Fittings (Gt. Britain) Ltd., Victoria Works, Hill Top, West Bromwich, Staffs. Telephone: Wednesbury 0761.

Details of the construction of these increasingly popular forms of divisions are given by photograph and drawing in this new colour publication. A neat arrangement where four Modernfold doors meet on a common post is shown and is adaptable to suit the meeting of three doors. Design data, weights, stacking space, curved door radii, maximum dimensions and fixing details are given, together with information on ironmongery. The brochure is to A4 size.

- **The Preservation and Flameproofing of Glued Timber Assemblies.** Hickson's Timber Impregnation Co. (G.B.) Ltd., Castleford, Yorkshire. Telephone: Castleford 2607.

This booklet deals with protection against both decay and fire. Tanalith "C" is used as protection against fungal decay, insect larvae, termites and soft rot moulds while "Pyrolith", in addition to giving protection from fungal decay, etc., reduces the rate of surface spread of flame and flame penetration. Both are applied by vacuum pressure, in cylinders, the usual sizes of which are about 35ft by 6ft dia which limits the sizes of members which can be treated, but these range from 24ft by 2ft 6in to 70ft 6in at the extremes. Treatment may be given prior to or after gluing, the former giving the more complete protection. A table of suitable adhesives is given. Economy can in some cases be effected by treating some of the laminae, such as the outer boards, before assembly, the inner boards having some other protection such as facing pieces of impregnated boards.

- **Seel Sprayed Asbestos.**
Canada Tiles.
Fort Sheets. The Universal Asbestos Manufacturing Co. Ltd., Tolpits, Watford, Herts. Telephone: Watford 34551.

The Universal Group maintain the flow of advertising and technical matter unabated. Seel sprayed asbestos is the speciality of a subsidiary, Chancery Insulations Ltd. The treatment, applied to asbestos-cement sheeting in ½in, ¾in and 1in thicknesses, is claimed to have six functions, being thermal insulation, fire protection, anti-condensation, anti-corrosion, sound absorption and dust exclusion. The latter function is achieved by the sprayed material bridging the gaps at the laps of asbestos-cement sheeting.

Canada tiles are ridged sheets having 40in net width of cover, three ridges being arranged in the width including one lapped edge. The lengths run from 4ft to 10ft, with purlin space of 4ft 6in maximum. Curved sheets are also available at 4ft 6in minimum radius.

Fort sheets are somewhat similar but have deeper troughs and consequently allow purlin spacing at 5ft 6in maximum. Sheet sizes are as Canada tiles.

All three publications form part of the newly adopted elaborate catalogue system, very fully documented and detailed, well indexed in an unconventional way that is expected to become comprehensible in time when it has had general adoption. It is based on the recommendations of the International Building Classification Committee. The size is A4 (11½in by 8½in), all being punched for incorporation in a binder.

A handy size companion publication is also available describing and illustrating the full range of products. The size is A6 which is about 5½in by 4½in.

- **A New Approach to Building Maintenance.** Palmer's Travelling Cradle and Scaffold Company Ltd., 3 Woodside Green, London, S.E.25. Telephone: ADDISCOMBE 7721.

Curtain walling and air conditioning have created new difficulties in keeping buildings clean externally. In this brochure Palmers offer apparatus to be fixed at roof level of tall buildings faced with curtain walling which consists of a rotatable jib on a trolley running on rails parallel with the external walls. The jib is terminated with a crossarm which has pulleys at its end, over which run hawsers suspending a glass fibre cradle. The trolley travels by electric power which also operates the winches in the trolley which wind up or down the cradle. All motion is controllable from the cradle. Safety trips are arranged to prevent over-run of the cradle and to stop descent if any obstruction gets in the path of the cradle, such as an open window. The roof track can be arranged to allow the cradle to travel without interruption from one face of the building to another, round internal and external angles. The system is named the Palmatic.

CATALOGUES

- **Roller Shutters, etc.** Haskins (E. Pollard & Co. Ltd.), Gnome House, Blackhorse Lane, Walthamstow, London, E.17.

A catalogue has been issued with the title "Protection of Openings in Buildings", which shows their full range of roller shutters, grilles, doors and gates, including those for lifts and garages. It is well illustrated with detail drawings and photographs.

- **Heating.** Copperad Ltd., Colnbrook, Bucks.

This catalogue is devoted to unit heaters. Designed for low, medium and high temperature hot water and steam, from 5 to 100 p.s.i., the output of each is set out in tables, while the various types are shown in large scale perspective. Diagrams give recommendations for position and direction of unit heaters in a typical workshop.

- **Electrical.** Falk Stadelmann & Co. Ltd., 91 Farringdon Road, London, E.C.1.

This publication shows the Summit range of fluorescent fittings, enclosed and louvred in a supplement to their current catalogues. Their Olympus range of tungsten fittings is shown in a separate pamphlet, as are their consumer control units and assemblies, with dimensions and prices.

- **Timber Cladding.** James Latham Ltd., Leaside Wharf, Clapton, London, E.5.

A revised pamphlet has been issued giving information on "Lathamclad", being tongued and grooved boarding for interior and exterior cladding in four sections and available in 22 or 23 woods, according to profile required.



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On Admiralty List.

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Another  Product RUBBER IMPROVEMENT LIMITED, WELLINGBOROUGH, NORTHANTS.

Information Digest (continued)

and for which prices are given. While patterns A B, C and D are listed, pattern B is not illustrated nor described, but it is similar in size to an alternative pattern A.

- **Ventilation.** Manwood Miller Fans and Filters Ltd. (a subsidiary of Copperad Ltd.), Colnbrook, Bucks.

A folder has been issued which describes this maker's capillary air washers, electronic air cleaners and centrifugal fans. The capillary air washers provide controlled humidity and are suitable for use in systems from 1,100 to 132,000 c.f.m. Electronic air cleaners are claimed to have up to 97 per cent efficiency. These are suitable for 1,150 to 106,800 c.f.m. Three types of centrifugal fans are offered, according to type of duty and have capacities from 50,000 to 150,000 c.f.m.

- **Rust Prevention.** Walter Carson & Sons Ltd., Grove Works, Lombard Road, Battersea, London, S.W.11.

A booklet has been prepared on the problem in connection with rust prevention of heavy steelwork. It gives the causes of rusting and mentions three ways of preventing its recurrence. It then touches on alternative inhibitors and practical considerations before giving their recommendations for the applications of their H.S.P. (Heavy Steel Paint) primer, first undercoating, second undercoating and finishing. There is also a note on the treatment of mill scale.

- **Illuminated Ceilings.** A.E.I. Lamp and Lighting Co. Ltd., 44 Fitzroy Road, London, N.W.1.

This company draws attention to the fact that they are now official lighting consultants for Isora Ceilings which will have been seen at the Building Trades Exhibition. These ceilings consist of translucent plastic panels on independent metal frames which are laid in a grid of light steel angles suspended from the structure above. Lighting is by fluorescent tube. The plastic is "self extinguishing" as to fire.

- **Preservation of Wood Veneers.** Borax Consolidated Ltd., Borax House, Carlisle Place, London, S.W.1.

A folder has been issued on a common cause of failure of plywood, i.e., infestation by wood borers. Their products are borate solutions in which the plywood veneers or plies are briefly immersed before gluing which is equally effective as with untreated plies.

- **Concrete Construction.** The Concrete Development Co. Ltd., 13-15 Carteret Street, London, S.W.1.

A brochure has been issued with the title "Tomorrow's Methods Planned Today," and it is concerned with construction using prestressed and pre-cast concrete units and structures made in factory conditions. Accuracy, dependability, speed and competitive price are claimed to result. Site work includes erection, with post-tensioning where necessary. Structural units in wall panels finished externally and internally are part of the system. The system is available to architects, engineers and building contractors, the design and advisory service being ready to collaborate in any problem. The products include columns, portal frames, beams, piles, bridge beams and components. The company is associated with Holland & Hannen and Cubitts Ltd.

- **Metalwork.** Clark, Hunt & Co. Ltd., 318-326 Southbury Road, Enfield, Middx.

Examples of the company's wrought ironwork are shown in a new publication. This includes duct covers, railings, cat ladders, fuel hoppers, cellar flaps, ventilating canopies, hinges and many small items in common use. Aluminium, brass and stainless steel are also used.

- **Partitioning.** G. A. Harvey & Co. (London) Ltd., Greenwich Metal Works, London, S.E.7.

A new leaflet has been issued describing steel partitioning, both room-height and dwarf patterns being available, the latter in two heights. The maximum height for storey height partitions is 10ft 2in, but also available at 7ft 2in and 8ft 8in. The dwarf partitions, described as barriers, have solid dados of 3ft 6in height with the alternatives of 2ft high glass screening over. The module is 3ft 4in for all types, while both single skin and double skin insulated constructions are made. Provision is made for electricity runs and all are readily demountable.

- **Plastic-faced Boards.** Bartrev Board Co. Ltd., Henrietta House, 9 Henrietta Place, London, W.1.

Avtrev melamine faced Bartrev is now available. The facing can be on one or both sides, on boards from 4in to 3in core thickness in sizes 6ft by 4ft and 8ft by 4ft. The melamine facing is available in 17 colours or patterns.

- **Thermal Insulation.** Northern Aluminium Co. Ltd., Banbury, Oxfordshire.

This manufacturer advocates aluminium corrugated sheeting as an insulant with the addition of aluminium foil, glass fibre or insulating fibreboard, or the use of two skins of aluminium foil in single or double skin with other forms of sheeting and linings. Diagrams explain the methods and values for the composite sheetings are given. Aluminium is said to be accepted in the model by-laws as an incombustible material for fire purposes. The names of suppliers of aluminium foil can be obtained on request.

- **Fire Appliances.** Richard Baxendale & Sons, Ltd., Chorley, Lancs.

The Architects' Guide is a well illustrated and dimensioned catalogue showing the alternative forms in which the Baxi Patent Fire is now available, including the rotatable ashbox and "outside ashbox" fires. Accessories in the form of convectors and boilers are included.

- **Builders Metal Hardware.** Evered & Co. Ltd., Surrey Works, Smethwick, 40.

A new catalogue has been published of the "Surrey" door, window and cabinet furniture in real B.M.A., brass (in coinage bronze) or Crobrite finish (nickel chrome plated), zinc alloy and aluminium. All lock sets are sprung lever types.

- **Woodwork.** James Longley & Co. Ltd., Crawley, Sussex.

This company has prepared a booklet illustrating the high quality architectural woodwork they undertake. This ranges from simple stairs and prefabricated buildings through panelling (including veneering) to ecclesiastical carving.

- **Ventilation.** Greenwood's and Airvac Ventilating Co. Ltd., Beacon House, Kingsway, London, W.C.2.

Additions to their catalogue have been issued which describe and illustrate their multi-panel movable louvre ventilators, "Mechavent" Roofline powered roof extract vents and their Ridgeline Extractor vent which operates without power. Performance figures are given for the ventilators.

- **Stairtreads.** Ferodo Ltd., Chapel-en-le-Frith, Stockport.

This maker's leaflet has been added to and revised to show curves, return ends and special shapes. Full size sections are given in this publication which is a sheet folded to size A4.

NEW PRODUCTS

In this feature are reviewed new lines introduced to the building industry for the first time and additions or improvements to existing ones. Any advantages claimed for a product are from information supplied by the manufacturer

Industrial Dehumidifier (A)

The Trembath industrial fan dehumidifier has been developed for use in the building trade and especially in situations where difficulty is experienced in drying out newly plastered walls. It has been designed to extract a maximum amount of water from the air and utilizes a Frigidaire $\frac{1}{2}$ h.p. condensing unit. It is claimed to be capable of extracting approximately 5gal of water during a period of 24 hours, in ideal conditions and continually dries and warms the air. This dry air is passed round the room where it picks up moisture from the plaster walls and returns the now cold, damp air to the apparatus. The moisture is then extracted and run into a water container. It is an entirely automatic apparatus and one advantage claimed on its behalf is that the method of drying, whereby there is no violent application of heat, does not warp new window frames, doors and other timber work. The casing of the unit is of sheet aluminium and is mounted on an angle iron frame, the air inlet being protected by a fan guard and the outlet by an aluminium painted expanded metal grille. The complete unit is mounted on two 8in dia solid-rubber-tyred wheels and two 4in dia solid-rubber-tyred castor wheels. A lifting handle is fitted

on one end to enable the unit to be wheeled over rough ground should this be necessary. There is a removable 5gal container so that the condensed moisture can be taken away. Air circulation is by means of a 12in dia four-blade fan and the heater consists of a 3kW black heat element, which is automatically controlled to switch on only when the ambient temperature falls below 55 deg F. The evaporator is an aluminium-finned copper tube assembly, the fins being mechanically bonded to the tubes to ensure maximum heat transfer efficiency. The condensing unit is connected through automatic controls, including expansion valve, constant pressure valve and heat exchanger, to the evaporator. Electrical supply: standard single phase A.C. Refrigerant: Refrigerant 12 (Freon 12). Overall dimensions: 3ft 11in long by 2ft 1in wide by 2ft 3½in high.

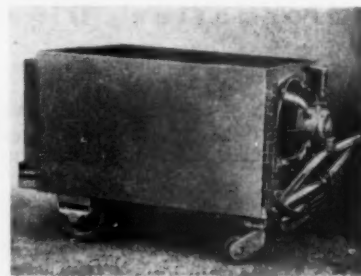
Trembath & Co. (Sales) Ltd., Purley Way, Croydon, Surrey.

Readers' Information Service, Ref A. Date 17/2/60.

★

New Wall Covering (B)

The new Marleymura wall covering tiles are made of vinyl. They can be applied to most wall surfaces that are



A

smooth, firm, dry and clean, including cement rendering and plaster, marble and plaster board, hardboard and plywood (on studding at not more than 16in intervals). The tiles should be fixed with Marley 21, a special neoprene adhesive made for the purpose. A right-angled gauge is used by the tiler to leave a ¼in gap between each tile. This gap should be subsequently lined in with Marleyfilla, a white cellulose-based filling material, or any other similar type of cellulose filler. The filler should be finished flush with the tiling. The tiles are 12in by 5½in and are supplied in plain pastel tints—green, blue, gold, grey and pink—and black. Half tiles and triangles can be introduced for added decorative effect. The tiles are claimed to be tough, washable and resistant to grease and acid. The use of an emulsion polish, such as Marley Superwax, will give the wall an attractive sheen. Marleymura can be supplied and fixed by the manufacturers or by other contractors and it is anticipated that supply-and-fix prices will range from about 20s to 30s per sq yd. In addition, the tiles will be available from builders' merchants.

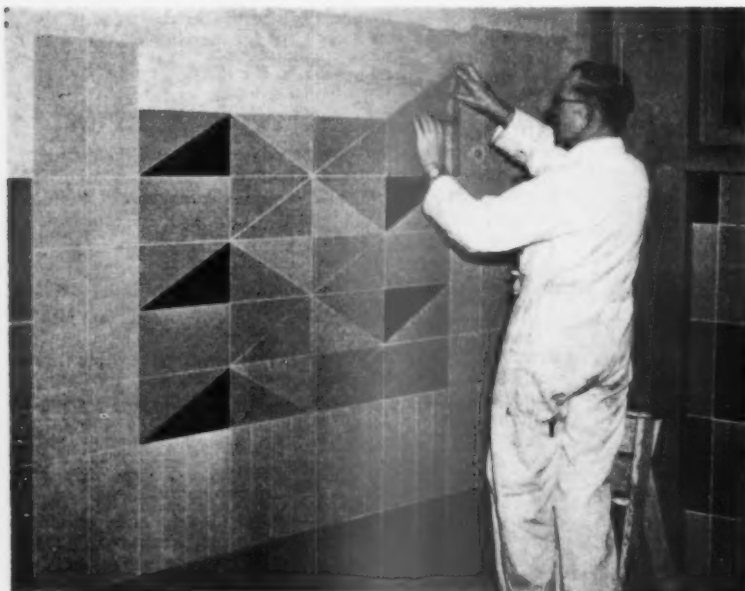
Marley Tile Co. Ltd., Sevenoaks, Kent.

Readers' Information Service, Ref. B. Date 17/2/60.

★

New Building Board

Swedish Masonite Quartrboard Special is a new type of building board. It is stated to be not only a covering, but also (without any other lining or underlay) a complete panel material. The new board can be fixed direct to plaster or brickwork with Masonite 642 or other suitable adhesive without the normal studding. It is claimed to be highly durable and resistant to damp and to be suitable for use even on exterior walls. It is further claimed to be completely stable and to make a good underlay when used on wood or concrete floors for keeping out damp and presenting a smooth working surface. It can be butt jointed, papered, distempered or painted and does not require preconditioning. Pins, nails and screws can be inserted into the panel without backing, for the purpose of hanging normal domestic objects. The "X" hook is



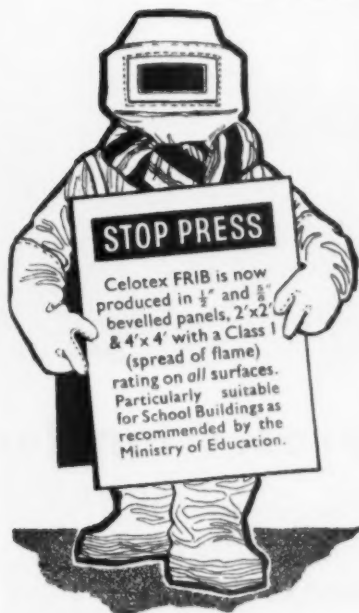
B

WHEN DESIGNING THAT NEW INDUSTRIAL BUILDING YOU MUST CONSIDER THE REQUIREMENTS OF THE THERMAL INSULATION ACT*

They call for a high performance factor in thermal insulating materials. If at the same time you wish to ensure effective flame resistance, excellent light reflection and no decoration problems, then . . .

CELOTEX REGD TRADE MARK **FRIB** (FLAME RESISTANT INSULATION BOARD)

which has a "k" factor of 0.35, a Class 1 (B.S.476) rating on both surfaces (no spread of flame whatsoever), is light in weight, economic in use, easily handled and readily installed with Celotex versatile metal fixing systems . . .



* The Thermal Insulation
(Industrial Buildings) Act 1957

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Please send me technical
details and a sample of your
Celotex Flame Resistant
Insulating Board. I am also
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TOWN

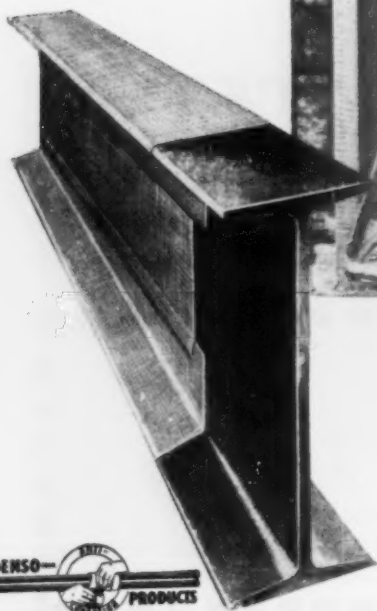
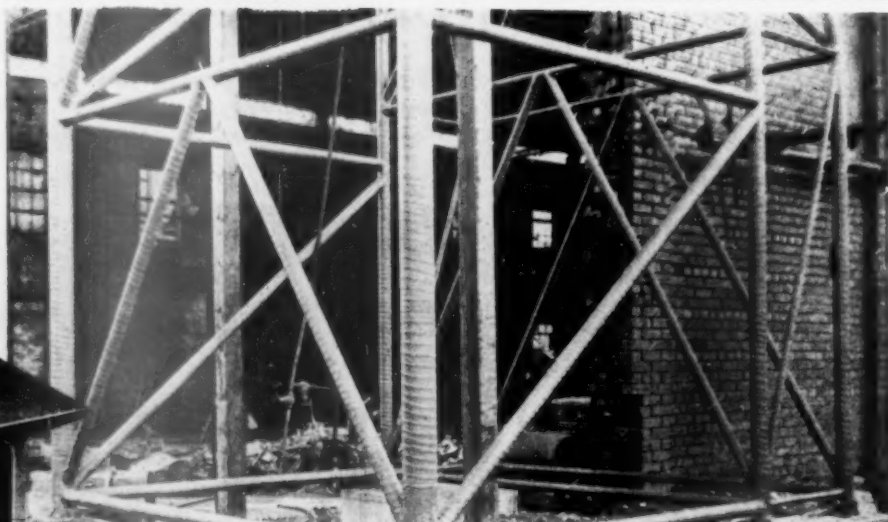
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NEW PRODUCTS (continued)

suitable for lighter articles, but plated screws should be used when putting up heavy objects, such as bookshelves, draining racks, etc. Very heavy objects, window seats, radiators, etc., should be hung on the battens. The board can be worked with ordinary tools and a fine tooth saw gives the cleanest cut, whilst the edges of the board can be sanded or bevelled. Painting can be carried out with all types of paints but the surface should first be sealed or primed. Masonite Quarterboard Special can be obtained in 4ft widths and in lengths of 12ft, 9ft, 8ft, and 6ft, with a thickness of $\frac{1}{2}$ in.

Masonite Ltd., Bevis Marks House, Bevis Marks, E.C.3.

Readers' Information Service, Ref. C. Date 17/2/60.

★

New Sanitary Appliances (D)

The latest additions to the Ceramant range of vitreous china sanitary appliances are No. 2668P/3 pedestal lavatory and No. 2774 Unitas/Silent W.C. Suite. The lavatory is of a distinctive design and has a generous tray space for toilet requisites. The basin measures 25in wide by 20in deep and stands 31in high on its pedestal. The W.C. suite is of the low level type, syphonic in action and quiet in operation and it can be provided with either a P or S trap. Overall, the unit measures 33in high by 21in wide by 29in deep, and the seat height is 16in, whilst cisterns of three duty capacities, 2gal, 2½gal and 3gal, are available. Both units can be supplied in white and in

seven colours. In addition, the company has brought out a new W.C. suite in Vitromant earthenware to match the recently introduced No. 695 P/1 pedestal lavatory and this unit (No. 143) comprises a W.C. basin with P or S trap and earthenware cistern of either 2 or 2½gal capacity and a plastics seat. This unit can be obtained in white or in eight different colours.

Twyfords Ltd., Stoke-on-Trent, Staffs. Stoke-on-Trent 23411.

Readers' Information Service, Ref. D. Date 17/2/60.

★

New Refrigerator (E)

The latest Astral refrigerator is a table model with 2 cu ft capacity, which should interest those who have only a limited kitchen space. It will stand on a shelf or table and can also be converted into a free-standing refrigerator with a set of legs which can be supplied as an extra. There are two adjustable polythene-coated wire shelves which have a shelf area of 4.2 sq ft and a polystyrene drip tray also serves as a container for uncooked meat or fish. Interior door fittings include a large butter rack with Perspex sliding doors, an egg rack, and a third rack for other dairy produce, bottles and jars. The evaporator unit contains two ice trays (1.1lb of ice) and can also be used to store up to 5lb of frozen foods. The new refrigerator will operate on A.C./D.C. mains or on town gas. Finish: interior: pale green; exterior: white or cream. Weight: 75lb. External dimensions: 25½in high by 21½in wide by 21½in deep. Price: £36 15s.

Morphy-Richards Ltd., 50 Conduit Street, London, W.1. Regent 4080.

Readers' Information Service, Ref. E. Date 17/2/60.



New Sliding Door Gear

Nylon wheels are now fitted to the No. 1 size of trolleys for sliding-door gear made by this company. The wheels are moulded with a boss and each of them acts as half the bearing running in special bushes impregnated with molybdenum disulphide. The body is cadmium-plated pressed steel and the wheels will revolve independently. This should be a great advantage when the trolleys are used on a curved track. It is claimed that the new wheel and bearing is unaffected by weather and that the wheel wear is less than that of the steel wheel which it replaces.

Coburn Engineers Ltd., Coburn Works, Peasmarsh, nr. Guildford, Surrey. Guildford 3373.

Readers' Information Service, Ref. F. Date 17/2/60.

★

P.V.C. Flooring Designs

New designs and colourings have been introduced to the Crestaline range of P.V.C. floor covering material. The new Tuscan effects, as they are called, are monochrome in colour and are in line with contemporary artistic taste, whilst their overall marking makes them suitable for the heavily trafficked areas for which Crestaline is specifically designed. Colours have been chosen to conform with a demand for bright, yet harmonious, colour schemes and architects should find that they are suitable for schools, hospitals and other specialized buildings. Although the standard Crestaline gauge of 2.00mm is offered as a stock line for single piece orders, Tuscan effects are also available in 3.20mm gauge for a minimum quantity of 400 linear yd by 2yd wide. If reception is favourable, the manufacturers will consider adding the heavy gauge to the range as a stock line for single piece orders. A card showing the new range of Tuscan effects can be obtained from the makers.

Jas. Williamson & Son Ltd., Lancaster. Lancaster 5222.

Readers' Information Service, Ref. G. Date 17/2/60.



D

NEW PRODUCTS (continued)

Rotodynamic Power Pump (H)

The Power Bullfrog has been introduced to meet the need for a self-contained pump unit combining the high capacity characteristics of a centrifugal pump with the reliability of a non-choke double diaphragm pump. It is claimed that this has been achieved by fitting an ultra high-capacity rotodynamic pump with flexible drive from the power unit. This flexible driveshaft permits the pump to work in the water or other liquid to be pumped without valves or any type of priming system. Pumping, therefore, commences immediately the engine is started. The Power Bullfrog is powered by a Villiers Mark 15 2½ b.h.p. four-stroke engine and is mounted on a steel tube chassis on 14in rubber-tyred wheels. It is fitted with 2½in delivery hose and is claimed to have a capacity of up to 14,000 gal/hr at 10ft total head and almost 12,000 gal/hr at 20ft head with a maximum head of 36ft. Particular applications for the unit would appear to be liquid manure pumping, cesspit emptying, draining and cleaning of small ponds and flood control in buildings and elsewhere. An additional pumping attachment, the Rana, is available for the Power Bullfrog, and this has a maximum capacity of 4,000 gal/hr and a maximum head of 100ft. By using this attachment, the range of jobs performed can be considerably widened to include, for instance, small-scale spray irrigation of key crops and a variety of cleaning and washing down operations. The Rana attachment can be used submerged or, alternatively, fitted with suction hose and footvalve. On suction duties, it is claimed to

have a lift of 31ft and consequently, when used in the standard 17ft 6in flexible drive shaft, can draw water from 48ft below ground level (this depth can be increased to nearly 56ft if the long type flexible drive shaft of 24ft is fitted). The Power Bullfrog weighs 120lb.

Katay Pumps and Turbines Ltd., Horton Parade, West Drayton, Middx. Readers' Information Service, Ref. H. Date 17/2/60.

★

New Steel Ladder (I)

The Tubespan is the name given to a new tubular steel ladder of girder construction. Its special frame consists of four tubular side rails spaced apart by a series of m.s. webs to which the tubular rungs are attached. The ladder can be built into the scaffolding by passing the scaffolding tubes through the sides of the ladder during erection. The Tubespan has been designed to carry a safe distributed load of 8cwt on a 20ft span and is claimed to be capable of being safely used for bridging gaps up to 20ft wide. The Tubespan covers the standard sizes of single ladders and our illustration shows a 20ft single section which weighs 2qr 8lb. The tubular side rails in this case act as hand rails, thus allowing the operator to ascend and descend fully upright and also allows the ladder to be carried more easily.

John Inshaw Ltd., The Mill, Easterhouse, Glasgow, Ballieston 1191.

Readers' Information Service, Ref. I. Date 17/2/60.

★

Self-adhesive Letters

Self-adhesive, flexible, metallic letters, known as Monolets, have recently been introduced for the purpose of marking personal property and gifts



with initials. They can be applied to any clean, dry surface or even a curved one and to such materials as glass, leather, metal, cloth, painted surfaces and boards. They are self-adhesive and do not have to be moistened for application. They will adhere permanently to surfaces although they can be removed without leaving a mark, simply by peeling off. They are claimed to be non-tarnishable and fadeless and the surface is embossed. Monolets are available in sizes ½in and ¾in high. Price: 6d each.

Peel & Campden Ltd., 39 Park Street, London, W.1. Grosvenor 6671.

Readers' Information Service, Ref. J. Date 17/2/60.

★

Modified Trestles

This company's multipurpose trestle has recently been modified. The alterations allow a standard scaffolding board, 9in by 1½in vertical, to be used on edge as a cross-member on all models, in place of a 3in by 4in timber which is not always available on site. The relative strength of this unit has been increased by virtue of the greater strength and depth available by using scaffolding boards. Continuous scaffolding supports can be provided as the units can accommodate the ends of two boards on edge, thus allowing continuity of cross-member between each trestle leg. Units Nos. 1 and 2, 1ft 4in and 1ft 8in, approximately, in height, have also been modified to receive, where necessary, a scaffolding board horizontally, thus providing quickly assembled light manway supports for crossing muddy ground and reinforced mesh when laid prior to concreting.

Causeway Reinforcements Ltd., Five Ash Works, Dover Road East, Northfleet, Kent.

Readers' Information Service, Ref. K. Date 17/2/60.



H



...no rivets?

*There aren't so many rivets in to-day's steelwork,
because Britain's steel industry is now rolling
new beams and columns, so proportioned as
to carry the load without needing riveted-on plates.
Welding also reduces the amount of riveting,
and results in a neat, compact construction.*

CHEAPER

These advances mean that the finished structure is
cheaper, because steel and labour are saved.

STRONGER A higher safe working stress is now recognized, again reducing the amount
of steel needed for a given job.

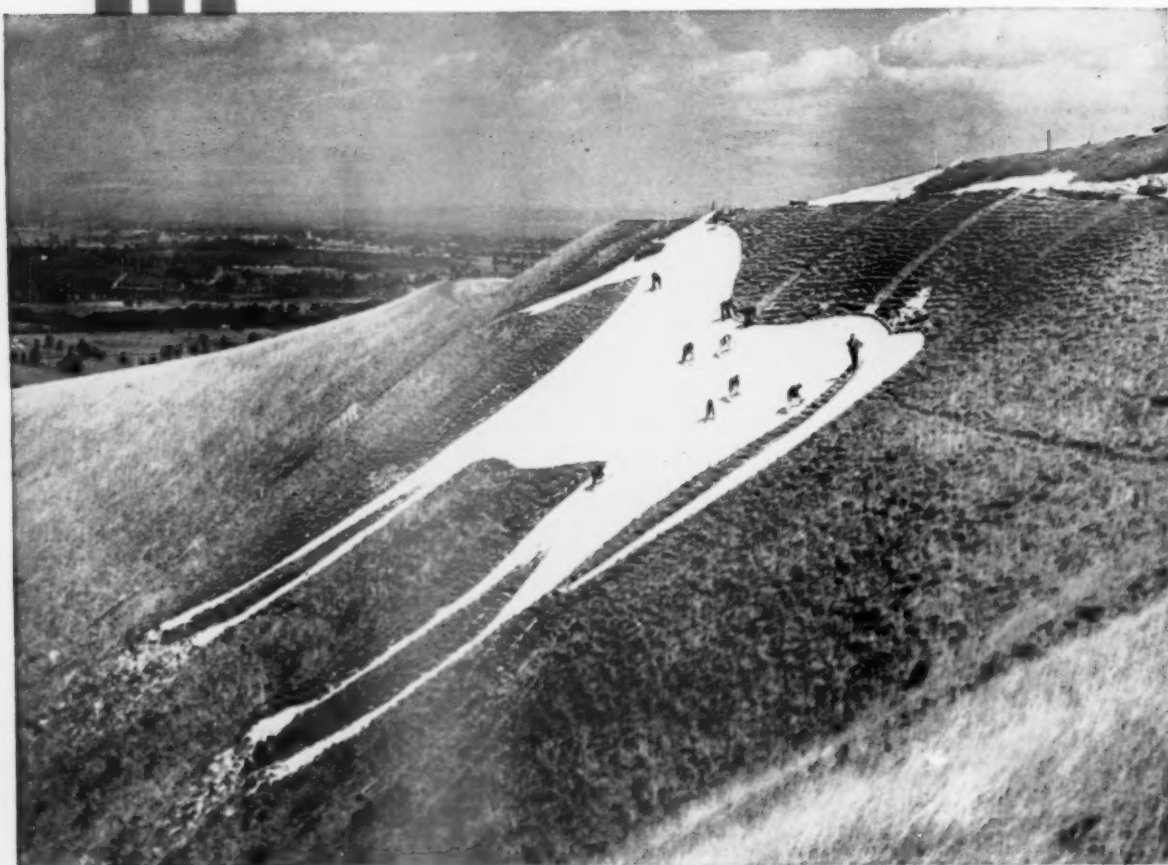
FURTHER SAVINGS Fire-proof encasement, hitherto calculated as a burden on the steel-
work, is now accepted as contributing to its strength: so that columns can be slimmer,
saving steel and labour.



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The White Horse of Westbury*



✱

When the Ministry of Works recently decided to re-surface the famous White Horse of Westbury, Tunnel White Portland Cement was used. This monument, which commemorates the victory of Alfred the Great over the Danes at Ethandune in the year 878, is now permanently white. The periodic re-cutting of the chalk is no longer necessary.

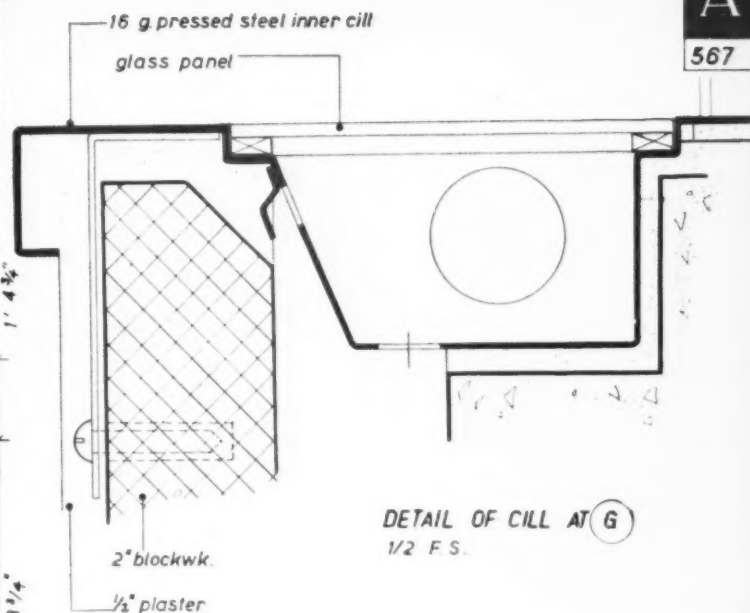
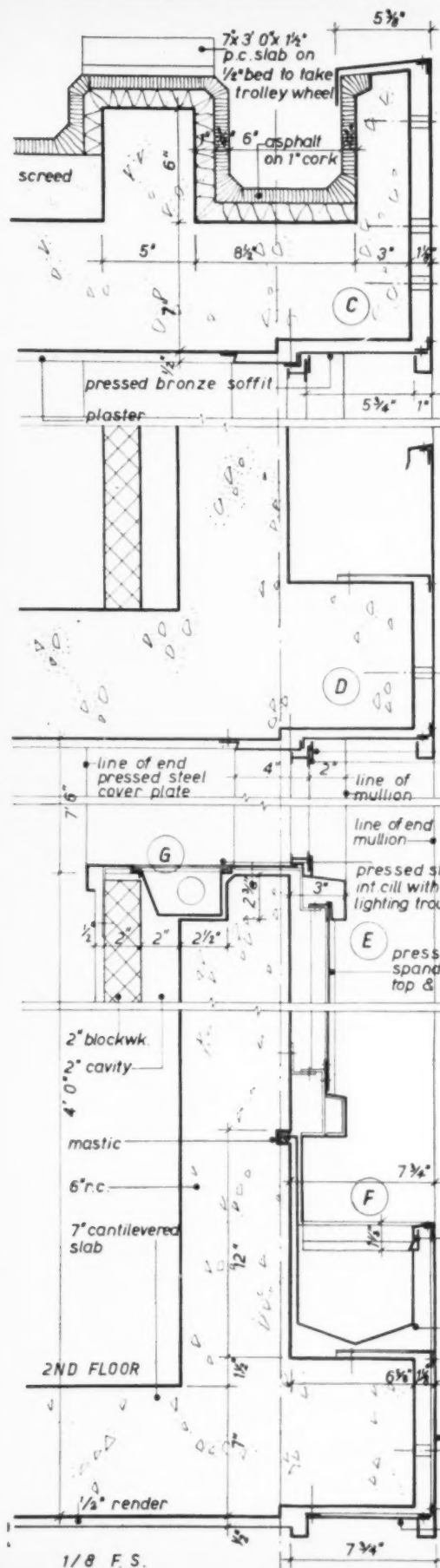
For full particulars of Tunnel White Portland Cement and our wide range of Coloured Cements please write to our head office.



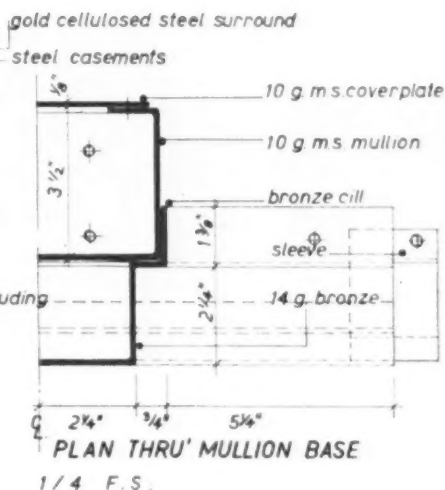
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TUNNEL WHITE CEMENT

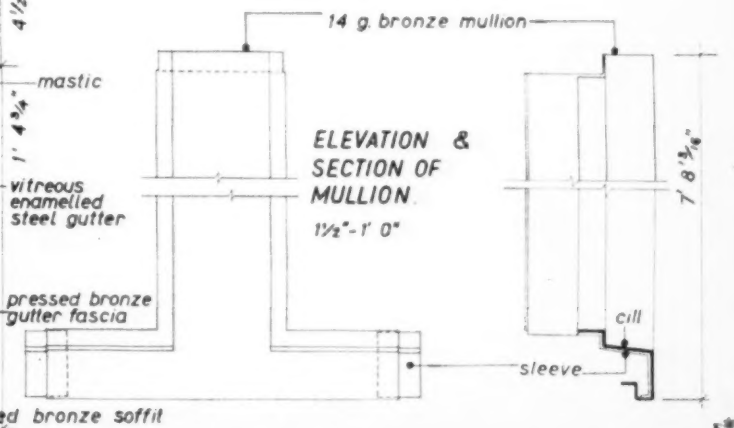
THE TUNNEL PORTLAND CEMENT COMPANY LTD. 105 Piccadilly, London, W.1. GROsvenor 4100



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PLAN THRU' MULLION BASE
1/4 F.S.



ELEVATION &
SECTION OF
MULLION
1 1/2" - 1' 0"

THIS SHEET TO BE READ IN CONJUNCTION WITH A 566



This sheet illustrates more fully the cladding to the Peter Robinson store in the Strand. The casements are in steel and are painted light grey with the surround to each window cellulosed gold. The cladding generally is in pressed bronze which, in addition to its being treated to prevent it staining the stonework, has been provided with gutters at each floor level, which also reduce water penetration in the joints generally. The architects are Denys Lasdun and Partners

COMPETITIVELY-PRICED AND PROVED THERMAL INSULATION



Photograph by courtesy of Ideal Home Magazine.

At "New Britwell", a house at Maidenhead. Architect: Michael H. H. Bayley, A.R.I.B.A.

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Tiles on felt
2-3 inches slag wool.

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Plasterboard and skim coat.

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Ground floor: 4½-in. brickwork,
2-in. cavity, 4-in. Thermalite,
two-coat plaster.

First floor: Tyrolean rendering,
3-in. Thermalite, 2-in. cavity,
4-in. Thermalite, two-coat
plaster.

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The owner writes regarding the efficiency of the Thermal insulation.

"The only further comment that I can add after nearly three years' occupation is that the heating system was unnecessarily large, the bedroom radiators only being used occasionally and it is only during very cold spells that it has to be stoked more than every other day."

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The thermal conductivity (k) of cellular concrete of 50 lbs. cu. ft. density according to the I.H.V.E. guide 1955 conditioned at 64° F 65% R.H. = 1.4 B.T.U.'s etc. This corresponds to the normal conditions in the average heated home during the winter months where a Thermalite inner leaf will have an equilibrium moisture content of approximately 4%.

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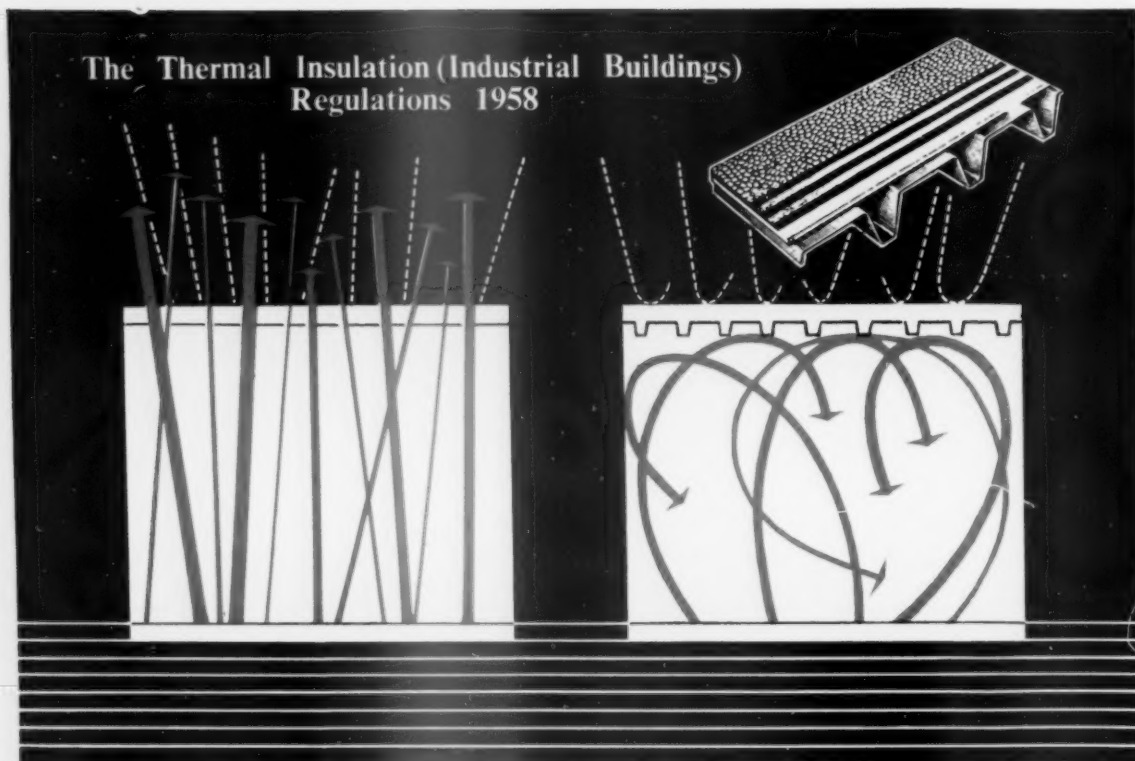
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The chart shows the "U" Values from various "BITUMETAL" specifications. The Briggs' Advisory Service—among the best in Europe—is at your service to design the roof you want for the project now on your board.

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Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

ALDERSHOT B.C. (a) Erection of a detached house for superintendent at Park Crematorium, with drainage and site works. (b) Borough Engineer and Surveyor, Town Hall. (c) 2gn. (e) February 22.

BANBURY B.C. (a) Construction of concrete bases for 27 garages with two brick-built stores, screen walls and garden at The Fairway. A nominated sub-contractor will erect the garages. (b) Borough Engineer and Surveyor, Municipal Buildings, Marlborough Road. (c) 2gn. (e) March 4.

BRIDGE-BLEAN R.C. (a) Erection of two pairs of three-bedroom houses, one block of four flats and one block of four bungalows at Hollow Street, Chislet, and external services. (b) Council Offices, 41 Old Dover Road, Canterbury. (c) 2gn. (e) March 7.

BURY ST. EDMUNDS. (a) Erection of 15 houses, Oliver Road and Willcox Avenue. (b) Borough Engineer and Surveyor, Borough Offices. (c) 2gn. (d) February 24. (e) February 29.

CARDIFF C.C. (a) Construction of a grammar school for boys at Fairwater. (b) City Architect, City Hall. (c) 2gn. (e) March 15.

CHIGWELL U.C. Erection of a pre-fabricated public hall to seat 150. (b) Engineer and Surveyor, Council Offices, Old Station Road, Loughton, Essex. (c) February 22.

CLITHEROE B.C. (a) Erection of 56 dwellings at Manor Road, comprising 24 one-bedroom maisonnettes, 14 one-bedroom bungalows and 18 two-bedroom bungalows. (b) Borough Engineer, Town Hall. (c) 2gn. (e) February 25.

CONISBOROUGH U.C. (a) Erection and completion initially of 31 Unity-type flats, March Gate. (b) Engineer and Surveyor, Council Offices, 5 High Street. (c) £2. (e) March 2.

CORNWALL C.C. (a) Erection of farm buildings and improvements to existing farm buildings (stage 2) at Coswinsawson Farm, Gwinear. (b) County Land Agent, 2 Strangeways Terrace, Truro. (c) 3gn. (e) February 20.

CRICKLADE AND WOOTTON R.C. (a) Erection of ten houses and ten bungalows in brick, and site works, at Lyneham. (b) Engineer and Surveyor, Wootton Bassett, Wilts. (c) 2gn. (e) March 18.

CROYDON B.C. (a) Construction of a swimming bath, kitchen and hall at St. Giles' Special School, Featherbed Lane. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) March 1.

address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.



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G

CROYDON B.C. (a) Construction of a kitchen and dining room at Gonville School, Thornton Heath. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) February 23.

CROYDON B.C. (a) Erection of a new science laboratory and adaptations at John Newnham School, Selsdon Park Road. (b) Chief Education Officer, Katherine Street, Croydon. (c) £1. (e) February 23.

CUMBERLAND C.C. (a) (1) Erection of two-classroom extension at Houghton C.E. Primary School, near Carlisle. (2) Erection of a C.E. school at Boltons, near Wigton. (3) Erection of a three-classroom primary school at Salterbeck, Workington. (b) County Architect, 15 Portland Square, Carlisle. (c) (1) February 28. (2) March 15.

DEVON C.C. (a) Erection of a police station at Chulmleigh. (b) County Architect, 97 Heavitree Road, Exeter. (c) 3gn. (d) February 20.

DEVON C.C. (a) Erection of a branch library at Paignton. (b) County Architect, 97 Heavitree Road, Exeter. (c) 3gn.

FLINTSHIRE. (a) Erection of a Welsh bi-lateral school off Conway Street, Mold. (b) County Architect, Llynne-grin, Mold. (c) 3gn. (e) March 7.

HAMMERSMITH B.C. (a) Repair, re-decoration and improvement in private houses both empty and occupied, costs varying between £500 and £3,000. (b) Borough Engineer and Surveyor, Town Hall, London, W.6.

HAVANT AND WATERLOO U.C. (a) Erection at the Town Hall of 6,000 sq ft of prefab. single-storey office accommodation with ancillary works. (d) February 18.

LEATHERHEAD U.C. (a) Erection of public conveniences and bus shelter at Great Bookham. (b) Engineer and Surveyor, Red House, Leatherhead. (e) February 25.

NEWARK-ON-TRENT B.C. (a) (1) Construction of 42 store cattle pens with 6in concrete floors (1,000 super yd), including fixing of penning, rails and gates; (2) Construction of 9in brickworks of a calf auction, with 6in concrete floors (230 super yd) and asbestos cement covering of roofs, with penning, rails and gates; (3) Extension of existing truck wash in 8in concrete (178 super yd); (4) Construction of 1,900 super yd of concrete roadways; (5) Drainage, water supply and electrical installations for the above. (b) Borough Engineer, Municipal Buildings, Balderton Gate. (c) 2gn. (e) March 4.

NORTHWICH U.C. (a) Erection of four houses and 30 single-storey dwellings on Malpas Road estate. (b) Engineer and Surveyor, The Council House. (e) March 7.

NORTH RIDING OF YORKSHIRE C.C. (a) Erection of Marske county junior school, near Redcar. (b) J. H. Napper & Partners, 133 Osborne Road, Newcastle-on-Tyne, architects. (e) March 4.

PANNAL ASH. (a) Builders' work in connection with the reorganization of the central heating organization at No. 3 District Police Training Centre, Pannal Ash. (b) Divisional Architect, Salisbury Buildings, Albert Street, Harrogate. (d) February 26. (e) March 18.

PEMBROKESHIRE C.C. (a) Erection of a three-bay fire station with ancillary buildings and one fireman's house in High Street, Pembroke Dock. The building will be mainly of two-storeys and general construction will be traditional with load-bearing walls, concrete roofs, etc. (b) County Architect, County Offices, Haverfordwest, Pembrokeshire. (c) 2gn. (d) February 20.

SALFORD C.C. (a) Extensions and adaptations to Cromwell Secondary Modern School. (b) Cruickshank & Seward, Architects, Royal London House, 1961 Deansgate, Manchester. (c) 3gn. (e) April 4.

SALTASH B.C. (a) Erection of 20 two-bedroom houses and 12 garages on the Grenfell Avenue site. Contract 1/1960. (b) Borough Surveyor, Church House, Saltash. (c) 2gn. (e) February 29.

SCARBOROUGH B.C. (a) Erection of 24 one-bedroom flats, West Place. (b) Borough and Water Engineer, Town Hall. (c) 2gn. (e) February 29.

SOUTH SHIELDS B.C. Erection of 120 houses and 43 garages at Simonside, consisting of 56 two-bedroom houses in terrace, 12 corner-type flats, 52 three-bedroom houses and 43 garages. (b) Borough Engineer, Town Hall. (c) 2gn. (e) March 9.

SOUTHWELL R.C. (a) Erection of 11 pairs of houses at Abbott Crescent, Farnsfield, with site works. (b) Architect and Surveyor, 7 Westgate, Southwell. (c) 2gn. (e) February 22.

STANDISH-WITH-LANTREE. (a) (1) Erection of 24 old people's bungalows, Warden's flat and communal buildings; (2) Construction of streets and sewers and site works for the development on Broomfield housing site. (b) Clerk of the Council, Ashfield House, Standish. (c) 2gn. (e) February 29.

STOURBRIDGE B.C. (a) Erection of a brick-built pavilion and public conveniences at South Road playing fields. (b) Engineer and Surveyor, Council House. (c) 2gn. (e) March 4.

SUTHERLAND C.C. (a) Excavator, builder and concrete work in connection with the erection of New Clyne J.S. School, Brora. (b) County Architect, Dornoch. (d) February 27.

SWANSEA B.C. (a) Erection of a block of shops and maisonnettes at Port Tenant Road. (b) Borough Architect, The Guildhall. (c) £2. (d) February 26.

TIPTON B.C. (a) Erection of 12 flats in two three-storey blocks at Alexandra Road. (b) Borough Housing Architect, Municipal Buildings. (c) 3gn. (e) March 8.

TYNEMOUTH B.C. (a) Erection of two-storey blocks of flats as follows: six blocks at Toll Square; three blocks at Holystone Gardens; one block at Howdon Road; one block at Verne Road. (b) Borough Surveyor, 16 Northumberland Square, North Shields. (c) 1gn. (e) March 9.

WALSALL B.C. (a) (1) Erection of 56 houses, Beachdale estate. (2) 64 houses, Beechdale estate. (3) 12 houses, Woodwards Road. 42 houses, Hildicks Bridge, Goscote Lane. (b) Borough Engineer and Surveyor, Council House. (c) 2gn. (e) February 25.

WANDSWORTH B.C. (a) Rebuilding the C. of E. Chapel at Putney Vale Cemetery. (b) Town Clerk, Municipal Buildings, London, S.W.18, giving details of experience, plant available, technical and supervisory staff and names of two technical referees. (d) March 9.

WEST SUFFOLK C.C. (a) Erection of a central kitchen at Tudor Road, Sudbury, to serve 500 meals (area 1,700 sq ft). (b) County Architects, 13 Westgate Street, Bury St. Edmunds. (d) Immediately. (e) March 11.

WORCESTER C.C. (a) Re-equipment of main kitchen block at Hillborough, Tallow Hill. (b) City Engineer and Surveyor, 22 Bridge Street, Worcester. (c) 2gn. (e) March 7.

WORCESTER C.C. (a) Additional sanitary accommodation at Hillborough Home for the Aged, Tallow Hill, comprising two three-storey blocks, with minor alterations. (b) City Engineer and Surveyor, 22 Bridge Street, Worcester. (c) 3gn. (e) February 29.

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BRIGHTON B.C. (1) Additions and alterations to the public abattoir. (3) McKellar & Westerman Ltd., 143 Church Road, Hove, Sussex. (4) £38,900.

CROYDON B.C. (1) First stage development of housing site. (2) Opposite Central Parade, Addington. (3) Gee, Walker & Slater Ltd., 100 Park Lane, London, W.1. (4) £199,530.

DAGENHAM B.C. (1) Construction of roads and sewerage, including raft foundations, etc., for second-phase development. (2) Canvey Island, Essex. (3) Davis Contractors Ltd. (4) £111,962. (1) Erection of 190 dwellings, four shops, 47 garages for Canvey Island U.D.C. (3) Frank P. Smith Ltd. (4) £260,870.

ENFIELD B.C. (1) Erection of 102 houses. (2) World's End housing site. (3) Townsend & Collins Ltd., Goat Lane, Enfield. (4) £179,865.

HARLOW, ESSEX. (1) Erection of factory extensions covering 75,000 sq ft for Key Glassworks Ltd. (2) Harlow. (3) W. & C. French Ltd., Epping New Road, Buckhurst Hill, Essex.

HEREFORD C.C. (1) Erection of 103 traditional houses. (2) Redhill estate. (3) Selleck, Nicholls & Co. Ltd., St. Austell, Cornwall. (4) £167,937.

ILFORD, ESSEX. (1) Erection of a supermarket. (2) Cranbrook Road. (3) Marshall Andrew & Co. Ltd., 51 Queen Anne's Gate, London, S.W.1. (4) £50,000.

LEEDS C.C. (1) Erection of 201 dwellings. (2) Ebor Gardens. (3) Reema (Chesterfield) Ltd., Chesterfield. (4) £351,470. (1) 85 dwellings. (2) Queens-hill. (3) N. B. Bell & Co. Ltd., Frankland Terrace, Leeds, 7. (4) £123,000. (1) 46 dwellings. (2) Moor Grange estate. (3) M. B. Bell & Co. Ltd. (4) £110,384.

LONDON UNIVERSITY. (1) Erection of the International Hall of Residence. (2) Brunswick Square, W.C.1. (3) Y. J. Lovell & Sons Ltd., 4 Endsleigh Gardens, London, W.C.1. (4) £427,000.

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LONDON, S.W. (1) Erection of a primary school. (2) Wimbledon Parkside. (3) Halse & Sons Ltd., 5 Chapel Hill, Woolwich, London, S.E.18. (4) £51,982.

LONDON, W. (1) Erection of a six-storey building. (2) Harley Street, London, W.1. (3) A. Roberts & Co. Ltd., 79 Eccleston Square, London, S.W.1. (4) £45,000.

LONDON, W. (1) Block of offices, maisonnettes and flats for Portarn Investments Ltd. (2) Park Crescent and Harley Street, London, W.1. (3) Tersons Ltd., 4 Dollis Park, London, N.3. (4) £430,000.

LONDON, W. (1) Erection of an office building. (2) Harrow Road, W. (3) William Moss & Sons Ltd., North Circular Road, London, N.W.2. (4) £200,000.

LUTON B.C. (1) 158 houses and 12 old people's dwellings. (2) Lewsey estate. (3) Drury & Co. Ltd., Wigston Fields, Leicester. (4) £284,949.

NORTH RIDING OF YORKSHIRE C.C. (1) Erection of a grammar school. (2) Redcar. (3) Charles Tennet (Contractors) Ltd., 74 Church Road, Stockton-on-Tees. (4) £132,000.

TAUNTON. (1) Multi-storey block of offices. (3) Tersons Ltd., 4 Dollis Park, London, N.3. (4) £240,000.

WESTMINSTER C.C. (1) Erection of eight blocks of flats. (2) Churchill Gardens, London, S.W.1. (3) Gee, Walker & Slater Ltd., 100 Park Lane, London, W.1. (4) £573,307.

WORCESTER C.C. (1) Erection of first instalment of a teachers' training college. (3) Spicers (Builders) Ltd., Ombersley Road, Worcester. (4) £384,676.

WORCESTER C.C. (1) Erection of 65 dwellings. (2) Moor Street. (3) Coleman & Tyas Ltd., Victoria Road, Bidford-on-Avon. (4) £103,750.

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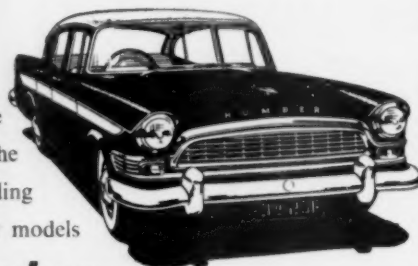
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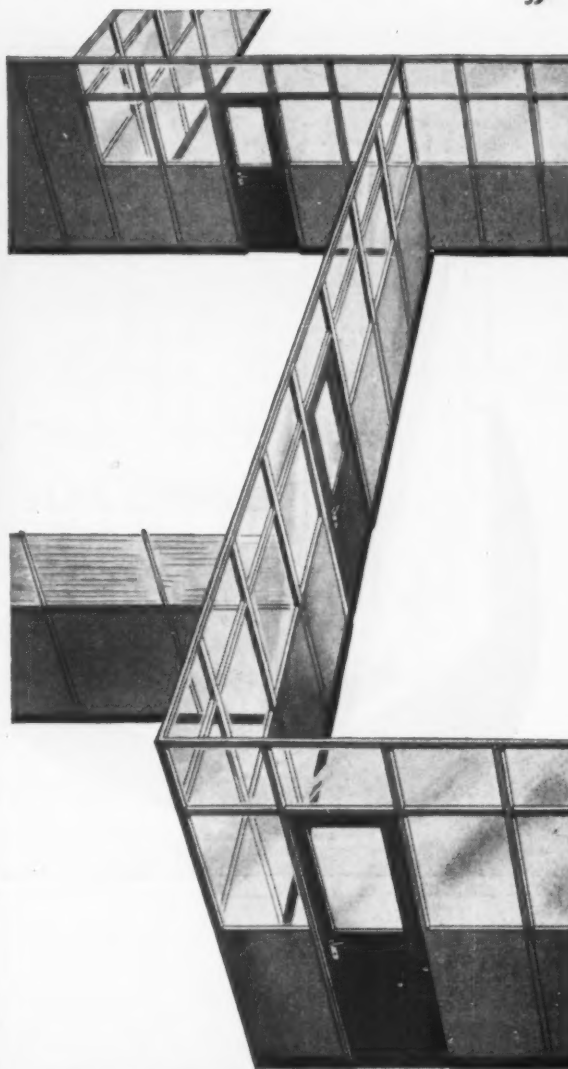
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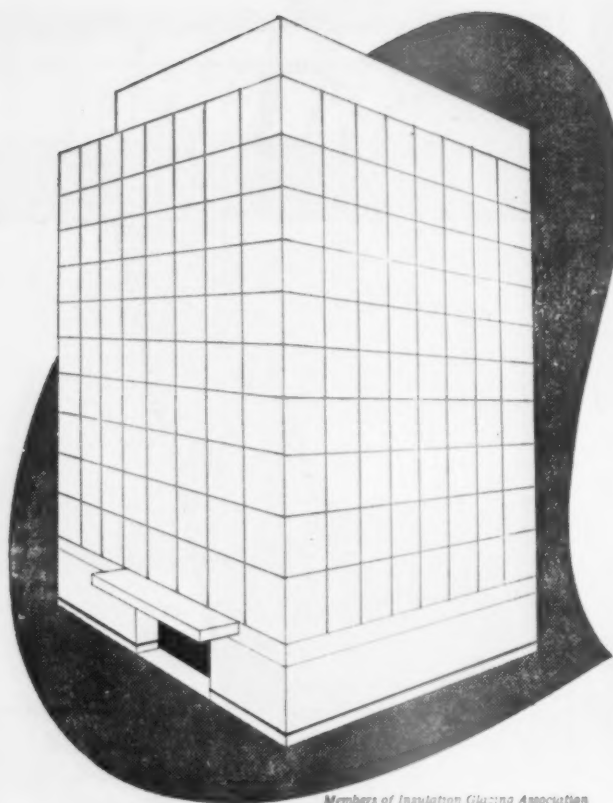
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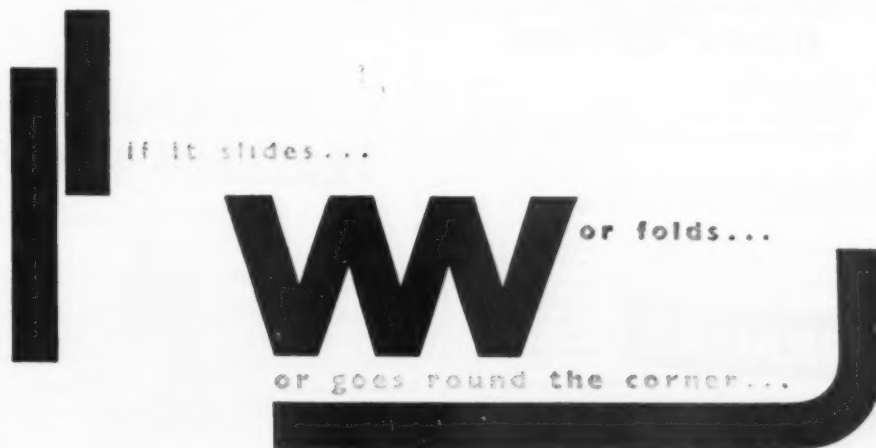
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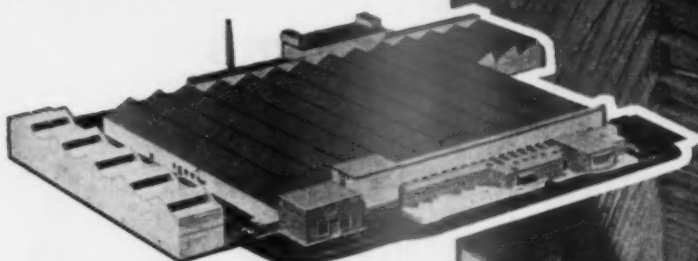
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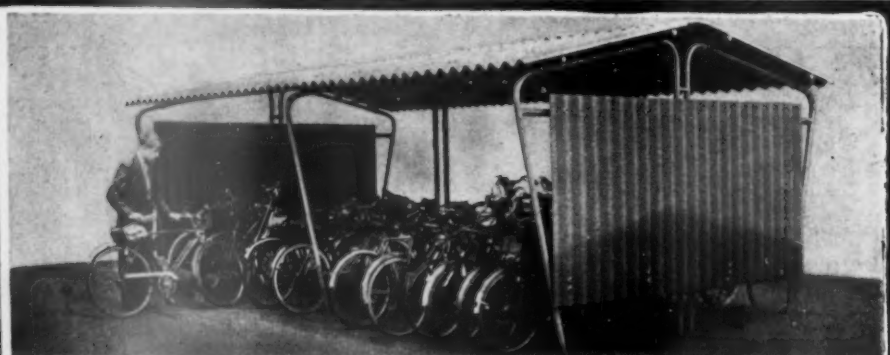
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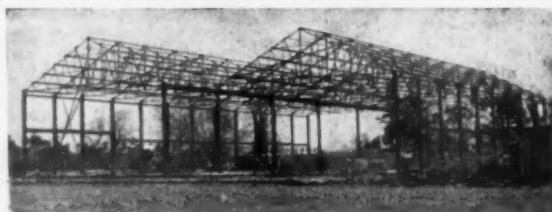
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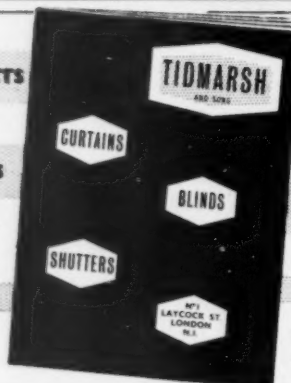
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APPLICATIONS are invited for the following pensionable appointments under the School Architect (C. T. Ayerst, A.R.I.B.A.).

- (a) Senior Assistant Architect, R.I.B.A. Final required, Grade APT IV (£1,095/£1,250 p.a.).
- (b) Architectural Assistant, Grade APT I (£630/£795 p.a.) or, with R.I.B.A. Intermediate, Grade APT II (£785/£910 p.a.) both progressing to £1,100 p.a. with R.I.B.A. Final.

Salaries will commence within the scales according to experience. Interesting projects will include large extensions to secondary schools. Five-day week in operation.

Application form and further particulars from The Chief Education Officer, Katharine Street, Croydon, Surrey.

Closing date March 4, 1960.

E. TABERNER,

Town Clerk.

[6134]

Paddington Borough Council ASSISTANT ARCHITECT

(£815/£1,100)

STARTING salary according to qualifications and experience of the successful candidate who should preferably be A.R.I.B.A., with experience in the design and supervision of building works of some magnitude and a knowledge of local authority requirements. Applications should state age, qualifications, present and past appointments with dates, names and addresses of three referees. Applications should reach me by March 7, 1960 (quoting A.455).

W. H. BENTLEY,

Town Clerk.

Town Hall,
Paddington Green, W.2.

[6162]

County Borough of Great Yarmouth Schools Architect's Department

APPLICATIONS are invited from Associate Members of the R.I.B.A. for a Senior Assistant Architect within APT IV (£1,065/£1,220).

Preference will be given to candidates who have had experience on school work.

Housing accommodation will be available to the successful candidate if married. Assistance with removal expenses may be given in suitable cases.

Full details of present and past appointments, age, qualifications and experience, together with the names of two referees, should reach the Schools Architect, 22 Euston Road, Great Yarmouth, by February 26, 1960.

D. G. FARROW,

Chief Education Officer.

22 Euston Road,
Great Yarmouth.

[6128]

Borough of Walthamstow Borough Architect's Department

WALTHAMSTOW is a municipal borough within the County of Essex, population 113,000, rateable value £1,747,737. It is a progressive authority and there is a large programme of interesting architectural and redevelopment schemes to be undertaken.

Applications are invited for the undermentioned vacancies on the permanent staff of the Borough Architect.

- (a) Two Senior Assistant Architects, APT IV (£1,065/£1,220).
- (b) Four Architectural Assistants, APT I/II (£610/£880).
- (c) Two Assistant Quantity Surveyors, APT II (£765/£880).
- (d) One Junior Quantity Surveyor, General Division (£210/£395).

The above salaries do not include the London Weighting allowance. Applicants for post (a) must be professionally qualified and have had extensive experience. For one of these posts, experience in redevelopment schemes and in the design and supervision of new industrial estates would be an advantage. Applicants for posts (b) and (c) should have the appropriate qualifications. Applicants for post (d) should have had experience in working up Bills of Quantities.

The Council will make 100 per cent advances to successful applicants for house purchase in this or adjoining boroughs.

Application forms may be obtained from the undersigned.

Closing date for receipt of applications: March 4, 1960.

G. A. BLAKELEY,

Town Clerk.

Town Hall,
Walthamstow, E.17.
February 12, 1960.

[6166]

Air Ministry, Works Design Branch

REQUIRES in London and Provinces Architectural Assistants with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details in permanent and semi-permanent construction. Financial assistance and time off given for recognized courses of study. Promotion and pension prospects. Five-day week with 18 working days leave per year initially. Overseas tours for which special allowances granted. Salary in London ranges from £680 (age 25) to £900 p.a. for men; from £673 to £868 p.a. for women, somewhat lower in Provinces. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write to Air Ministry, W.G.c. Lacon House, Theobald's Road, London, W.C.1, or to any Employment Exchange (quoting Order No. King's Cross 3744), giving age, details of training, qualifications, full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed.

[0889]

County Borough of East Ham

PRINCIPAL ASSISTANT PLANNING OFFICER

Grade APT IV (£1,065/£1,220)

VACANCY in Borough Engineer's Department. Town Weighting paid in addition.

Salary above minimum paid according to qualifications and experience.

Subsistence allowance may be paid over a reasonable period to person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Details and application form from the Town Clerk, E.6.

Closing date February 29, 1960.

[6143]

Consett Urban District Council APPOINTMENT OF ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above permanent appointment in the Surveyor's Department, at a salary of £1,070 per annum, i.e., the maximum of the Grade (£785/£1,070), according to qualifications and experience.

A five-day week is in operation and car allowance on a casual user basis will be paid.

Housing accommodation will be provided for the successful candidate.

Immediate schemes include design of new swimming baths and development of the Town Centre in accordance with the comprehensive development area shown on the town map.

Candidates must have passed Parts I and II of the R.I.B.A. Final or Special Final examination or their equivalent, at one of the recognized schools of architecture, and should have had experience in housing work with a Local Authority.

The appointment will be subject to the National Conditions, the provisions of the Local Government Superannuation Acts, one month's notice on either side and the passing of a medical examination.

Applications in envelopes endorsed "Architectural Assistant" giving details of age, qualifications, and experience, together with the names and addresses of three persons to whom reference may be made, are to be addressed to the undersigned and delivered not later than March 9, 1960.

Candidates must declare their relationship, if any, with any member or senior official of the Council.

J. QUINN,

Clerk of the Council.

Council Offices,
Medonsley Road
Consett,
Co. Durham.
February 5, 1960.

[6142]

W. S. ATKINS & PARTNERS (Consulting Engineers)

REQUIRE qualified Architects and Architectural Draughtsmen in their architectural department to work on major industrial projects. Conditions of service include a five-day week and superannuation scheme. Applications should be addressed to the Personnel Manager, 158 Victoria Street, S.W.1.

[6066]

Hampshire County Council PRINCIPAL ASSISTANT ARCHITECT

Scale "C" (£1,385/£1,620)

REQUIRED in the County Architect's Department. Candidates must be Associates of the Royal Institute of British Architects and have had considerable and wide experience in design, preparation of sketch plans, working drawings, specifications, and the supervision of work in progress. Experience with a Local Authority desirable. Appointment terminable by three months' notice on either side. Separation allowance and assistance with removal expenses in approved cases. Application forms (send s.a.e.), returnable by February 29 from the Clerk of the County Council, The Castle, Winchester.

[6141]

City and County of Newcastle upon Tyne

City Architect's Department

APPLICATIONS are invited for the undermentioned vacancies on the permanent staff of the City Architect's Department:

Senior Assistant Architects (Housing), APT IV (£1,065/£1,220).

Senior Assistant Architects (General, Education, Housing or Rehousing), Special Class (£785/£1,070).

Assistant Architects (General, Education, Housing or Rehousing), APT II (£765/£880).

Architectural Assistants (General or Rehousing), APT I (£610/£765).

Commencing salaries will be fixed within the above scales according to qualifications and experience.

These appointments offer excellent opportunities to play a vital part in the design and construction of a large and varied programme of normal housing and multi-storey flats, and/or a wide range of civic buildings, including: schools and schemes for further education purposes; divisional fire stations, a new airport terminal building for the city airport, clinics, libraries and an art gallery, and a regional abattoir and cattle market.

Application forms and full particulars may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, to whom they should be returned not later than Thursday, March 10, 1960.

Applicants must clearly indicate when requesting particulars the Section of the Department and the Grade for which they wish to be considered.

JOHN ATKINSON,

Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
February, 1960.

[6161]

British Transport Commission

Office of the Architect

SENIOR ASSISTANT ARCHITECT

Salary range: £1,200/£1,420

APPLICATIONS must be Associates of the R.I.B.A. with experience in architectural practice and combine design ability with a practical approach to office procedure. Work dealt with covers wide range of large modernization projects connected with all activities of the Commission.

Superannuation scheme; certain travel facilities; medical examination. Write stating age, qualifications and experience to Director of Establishment, British Transport Commission, 222 Marylebone Road, London, N.W.1, within 14 days; addressed envelope for acknowledgment.

[6138]

Wiltshire County Council

County Planning Department

SENIOR PLANNING ASSISTANT

Special Grade. Salary within the range £785/£1,070 per annum.

APPLICATIONS should be Associate Members of the Town Planning Institute and have had experience in research into problems relating to population changes, family structures, employment, design and layout, but consideration will be given to candidates who have had architectural experience.

Applicants should possess a motor-car.

Written application, giving details of age, education, qualifications and experience, together with the names of two referees should be sent to the Clerk of the County Council, County Hall, Trowbridge, by Monday, February 29, 1960.

[6154]

Metropolitan Borough of Islington

Borough Engineer and Surveyor's Department

APPLICATIONS are invited from suitably qualified persons, not more than 50 years of age, for the appointment of Senior Technical Assistant, Grade APT III (£880/£1,065 per annum, plus London Weighting) on the permanent staff of the Housing Maintenance Section.

Candidates must have a sound knowledge of building construction and services, considerable experience in the preparation of specifications and estimates for maintenance works, and should preferably have passed the final examination of an appropriate professional institute.

Forms of application, returnable by first post on Monday, February 29, 1960, obtainable from the Borough Engineer and Surveyor, Town Hall, Upper Street, N.1.

H. DIXON CLARK,

Town Clerk.

[6133]

County Borough of East Ham ARCHITECTURAL ASSISTANTS APT I

Salary up to £795 per annum. SUBSISTENCE allowances may be granted over a reasonable period to the persons appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by March 4, 1960, from the Town Clerk, Town Hall, East Ham, E.6.

[6152]

MISCELLANEOUS SECTION

RATE: 1/9d per line, minimum 3/6d, average line 6 words. Each para charged separately. Advertisements for Situations Wanted are accepted at the specially reduced rate of 6d. per line, minimum 1/6d.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

SEMI-DISPLAY Advertisements with centralised lines are charged at 25/- per inch, and pro rata, minimum half inch.

PRESS DAY, Monday. Remittances payable to Messrs. Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors

APPOINTMENTS (cont)

Rate: 25/- per inch and pro rata, minimum half inch.

County Borough of Bury

APPLICATIONS invited for following permanent appointments:

(a) Senior Assistant Architect, APT IV (£1,065/£1,220).

(b) Senior Assistant Quantity Surveyor, APT IV (£1,065/£1,220).

(c) Assistant Quantity Surveyor, APT III (£880/£1,065) or Special Grade (£735/£1,070).

Commencing salaries according to qualifications and experience.

Applicants for appointments (a) and (b) should be experienced in dealing with contracts for large public works and be professionally qualified.

Applications stating position applied for, age, details of training, qualifications, present and previous appointments and experience, together with names and addresses of two referees, must reach me by March 7, 1960.

EDWARD S. SMITH.

Town Hall, Bury.
February 9, 1960.

Town Clerk.
[6155]

Borough of Harrow

APPLICATIONS are invited for the following appointments in the Borough Engineer and Surveyor's Department:

Chief Technical Assistant (Maintenance), APT Grade IV (£1,065/£1,220 per annum, plus London Weighting).

Applicants should be suitably qualified and experienced to organize both routine and long-term maintenance improvements and service installation works on approximately 5,000 dwellings, together with all municipal properties (except schools).

The person appointed will be responsible for works carried out by direct labour (under a Works Superintendent) and by contract.

Technical Assistant (Building Bye-laws), APT Grade III (£765/£880 per annum, plus London Weighting).

Applicants should be qualified Building Inspectors.

The duties will be mainly in the office advising callers regarding the Council's Building Bye-laws and other matters normally dealt with in a Building Inspector's section.

Commencing salaries will be in accordance with qualifications and experience.

Contributions towards removal expenses will be considered.

The appointments will be subject to the Local Government Superannuation Acts and to the National Joint Council's Scheme of Conditions of Service.

Application forms, obtainable from me, should be returned not later than Saturday, March 5, 1960.

D. H. PRITCHARD, Town Clerk.
Town Clerk's Office, Harrow Weald L-dn,
92 Uxbridge Road, Harrow Weald, Middx. [6167]

ARCHITECTURAL APPOINTMENTS VACANT

Rate: 1/9 per line, minimum 3/6, average line six words.

ARCHITECTURAL ASSISTANT required with good general training, capable of taking charge of London office. Good opportunity for progressive young architect. Write giving particulars of qualifications and salary required to Box 6936, [6149]

ARCHITECTURAL ASSISTANTS REQUIRED WHY travel to Town when I can offer two Assistants. Inter Final grade, first-class work on stores, office buildings, factories, dance halls, etc. Five-day week, bonus scheme, luncheon vouchers, use of cars on job visits and for summer holidays. Pleasant surroundings with easy access to Morden Under-round and Southern Electric Merton Park Station. 146 Mostyn Road, S.W.19. Tel.: L1Berty 8181. [6121]

ARCHITECTURAL ASSISTANTS required in Birmingham office for preparation of working drawings, specifications, etc. Ability to drive a car an asset. Salary £800 to £1,000 per annum according to experience. Pension scheme. Telephone: Birmingham Central 6139, or write Box 7240. [6116]

ARCHITECTURAL ASSISTANTS, Intermediate or above, required for interesting U.K. and tropical work by London firm in new offices, pleasant surroundings, Wimbledon. No town travelling; five-day week. Write or telephone J. E. K. Harrison, Eagle House, High Street, Wimbledon, S.W.19. WIMBLEDON 4244/5. [6137]

ARCHITECTURAL ASSISTANT, Intermediate standard. Busy London office. Good prospects. Box 3668. [6060]

ARCHITECTURAL ASSISTANTS of all grades required in Westminster office to work on new hospital schemes. Please write to Box 7362. [6148]

ARCHITECTURAL ASSISTANT required at final standard for interesting and varied work in small office. Write giving qualifications and experience to: T. A. Bird & R. M. T. Tyler, 13 Welbeck Street, W.1. [6151]

ARCHITECTURAL ASSISTANT at Final standard required by Buckinghamshire office. Interesting and varied work with scope for initiative and responsibility. State age, experience and salary required to Box 5143. [6136]

ARCHITECTURAL ASSISTANT required, with at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 20 Bedford Square, London, W.C.1. [60916]

ARCHITECTURAL ASSISTANTS, Senior and Junior, required by firm in High Wycombe for commercial and industrial schemes. Scope for responsibility and experience. Five-day week. Write Box 5793. [60999]

ARCHITECT'S ASSISTANT, Capable Assistant required for expanding practice in East Cornwall. Good draughtsmanship and ability to survey buildings essential. Time off for study if required. Reply in writing, stating age, training, experience and salary required, to G. R. Vaughan Ellis, Chartered Architect, N.P. Bank Buildings, Liskeard, Cornwall. [6157]

ARCHITECTURAL ASSISTANTS required. R.I.B.A. Intermediate standard with some office experience. Varied and interesting work. Five-day week. Good salaries for keen and competent people. William Crabtree, F.R.I.B.A., 8 Robert Adam Street, W.1 (WELbeck 9909). [6068]

ARCHITECTS AND MAINTENANCE SURVEYORS. Pensionable posts for men and women at least 25 and under 35 on 1/6/60 (extension for Regular Forces Service, Overseas Civil Service, established Civil Service and temporary Government service as Architect or Maintenance Surveyor). Candidates must be Registered Architects or, alternatively, for Maintenance Surveyor posts, have achieved Corporate Membership of R.I.C.S. (Building Section), or have passed examinations necessary for attaining Corporate Membership. Starting salary (men, London) from £830/£1,125, according to age. Scale minimum (London) £1,190. Promotion prospects. Write Civil Service Commission, 17 North Audley Street, London, W.1, for application form quoting S/60-61. [6139]

ARCHITECTURAL ASSISTANT, London, Final standard. Industrial and commercial, Progressive and interesting. Salary according to experience and ability. Box 3667. [60079]

ASSISTANT urgently required, Intermediate to Final standard. Interesting and varied work with opportunities for site supervision. Salary from £600 plus L.V. G. Gordon Stanham, Adamson, Gray & Partners, 9/10 Fenchurch Street, London, E.C.3. MANSION House 1010 and 5274. [6156]

BRITISH OVERSEAS AIRWAYS CORPORATION invite applications for the post of Assistant Staff Architect at London Airport. Preference given to candidates over 25 years of age with following qualifications and experience:

A.R.I.B.A.

Experience in the design of industrial buildings, offices and shop fitting work.

Competent in rapid sketch planning and estimating.

Experience of overseas work an advantage.

Applicants should be prepared to go abroad for short periods with appropriate allowances. The post is for the period of 12 months and is subject to complete review at the end of this period.

Salary in the range £1,060/£1,290 per annum in accordance with qualifications and experience.

Apply, giving full details of qualifications, to Recruitment Manager, B.O.A.C., London Airport, Hounslow, Middlesex. [6158]

COVELL & MATTHEWS

require

capable and enthusiastic

Senior and Junior Assistants

to work on large central area redevelopment projects

Salary according to experience

Five-day week

Ring REGent 2291

[5951]

CHARLES PIKE & PARTNERS require experienced Assistants, Salary according to ability. Phone: HOL 3532 for appointment or write 14 Lincoln's Inn Fields, W.C.2. [6164]

EXPERIENCED CLERK OF WORKS required for large Student Hostel contract in Nigeria. Appointment for one tour of 18 months, commencing April. Salary £1,500 p.a. with 15 per cent 'ratuity'. 15 weeks' leave with full pay on termination. Furnished accommodation provided at reasonable rent. Loan for car purchase, car allowance, children's allowances and first-class air passages. Apply with references by airmail to the Bursar, University College, Ibadan, Nigeria. Selected applicants interviewed London, late March. For further information apply London representative, 40 Gordon Square. Tel.: EUSon 8948. [6147]

KENT COUNTY COUNCIL

NEW POSTS are offered in the office of the County Architect to assist with the Council's expanding building programmes which include many large and interesting projects.

ARCHITECTS possessing design ability and with experience in the design and control of building projects.

APT Grade V £1,220/£1,375

APT Grade IV £1,065/£1,220

Special Scale £785/£1,070

ENGINEERS with experience in the design and supervision of installations in all types of buildings.

Electrical (senior post) Scale B £1,280/£1,485

Heating and Mechanical APT Grades IV-V £1,065/£1,375

QUANTITY SURVEYOR with experience in preparation of estimates, bills of quantities and final accounts.

APT Grade IV £1,065/£1,220

CLERICAL ASSISTANT to Technical Librarian

Clerical Grade I £595/£670

Candidates for posts in APT Grade IV and above must be corporate members of the appropriate professional institution. Those for the special architectural scale must have passed Parts I and II of the final R.I.B.A. examination.

The posts are on the permanent staff of the Buildings Department and are superannuable. Commencing salaries within the scales according to qualifications and experience. N.J.C. conditions of service.

Application forms and further details from County Architect, Springfield, Maidstone. Closing date, February 25, 1960.

ARCHITECTURAL APPOINTMENTS VACANT (cont)

CAPABLE Architectural Assistants (all grades) required in a modern office in Hemel Hempstead. Interesting and varied work. State age, training, qualifications and/or experience. Box 7050. [6062]

ELIE MAYORCAS requires Senior Assistants with minimum of three years' office experience in this country. Write, giving particulars of architectural education and experience, and salary required, to: 13 David Mews, Baker Street, W.1. [6060]

IMPORTANT vacancy occurs in chartered quantity surveyor's office in Wrexham area of North Wales for Senior Assistant fully experienced in taking-off, preparing final accounts, etc., in all types of work. Appointment progressive. Write giving full details of age, experience and salary required. Second class travelling expenses will be paid for interview. Box 7354. [6144]

INTERMEDIATE standard Architectural Assistant required immediately for work on exhibition and ancillary buildings. Write giving details of age, training and experience, if any, to the Staff Architect, Olympia Limited, Kensington, London, W.14. [6060]

JAMES CUBITT & PARTNERS urgently require Assistant. Interesting responsible work West Africa. Fully qualified but professional practice may be outstanding. Preferably unmarried and two years minimum office experience. Phone: WEL 0258. [6159]

JUNIOR ASSISTANT required by chartered surveyor in Wrexham area of North Wales for working up with prospects of taking-off and site measuring. Write giving full details of age, experience and salary required. Second class travelling expenses will be paid for interview. Box 7355. [6145]

LARGE-SCALE development in London and industrial buildings in Home Counties. High office blocks and residential flats. Four Assistant Architects required. Senior and Intermediate standard. West End office. Five-day week. Good salaries and bonuses. Box 7076. [6080]

LONDON ARCHITECTS require Assistants of Intermediate and of Final standard for work on large scale University development. Salaries commensurate with experience. Five-day week. Telephone: WHI 2552 or write Box 7100. [6059]

LONDON ARCHITECTS' OFFICE requires architect for University work. Candidate must be well above average, with five to seven years' responsible experience. Salary about £1,200. Telephone WHI 2552 for interview, or apply in writing to Box 7099. [6054]

LOUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON & FRASER have vacancies for young qualified, and junior Assistants in their Exeter office. Applications, giving details of experience, age and salary, should be sent to 12 Baring Crescent, Exeter. [6160]

QUALIFIED ARCHITECT required. Bristol. Industrial/commercial experience. Scope for individuality and freedom of expression. Good salary. Interesting work. Pension scheme. Assistants of Intermediate standard also required. Details of experience to W. H. Watkins, Gray & Partners, 1 Clare Street, Bristol, 1. [6032]

QUALIFIED ASSISTANT ARCHITECT required for the preparation of working drawings for interesting civic projects. Write giving details of experience and salary required to Robert Potter and Richard Hare, F/A.R.I.B.A., De Vaux House, Salisbury. [6163]

RESARCH and development work in relation to the design of buildings and building elements for factory production. Architectural staff of varying grades required for this work in consultant's office. Whilst there are the usual luncheon vouchers, superannuation, etc., we assume the people we are anxious to get will be more interested in the type of work with those who are, please apply to: A. M. Gear & Associates, 12 Manchester Square, London, W.1. [6150]

REQUIRED immediately for interesting work including technical college, housing and industrial schemes: Architectural Assistants of not less than Intermediate standard with considerable office experience. Application stating age, experience and salary required to: Atkinson, Smith and Haywood, F.R., A.R.I.B.A., 4 Raymond Buildings, Grays Inn, London, W.C.1. [5953]

SENIOR ARCHITECTURAL ASSISTANTS required to work on industrial projects, having experience in handling complete contracts. A.R.I.B.A. or Final standard. [6150]

Architectural Assistants of Intermediate standard for work on varied projects. Apply stating position applied for, age, experience and salary required to: Group Architect, Associated Electrical Industries (Rugby) Limited, Mill Road, Rugby, Warwickshire. [6125]

SENIOR ARCHITECTURAL ASSISTANTS, and Juniors up to about Intermediate standard, required for varied industrial and commercial work in West End office. Scope for initiative and advancement. Salary from £500 to £1,000, according to age and experience. Five-day week. Write giving full details to Box 6379. [6088]

SENIOR ASSISTANT urgently required for pleasant office in Gray's Inn. Interesting and varied practice. Salary up to £1,100. Telephone CHAncery 8387. [6135]

STEEL, PEECH & TOZER, branch of the United Steel Co. Ltd., have vacancies for Architectural Draughtsman with at least five years practical experience. Variable type of work including office blocks, amenity centres and service buildings. Industrial experience would be advantage, but is not essential. Good working conditions, 38-hour week, and excellent superannuation scheme. Salary according to experience and qualifications. Applications should be made in writing to the Labour Manager, Steel, Peech & Tozer, The Ickles, Rotherham. [6140]

SITUATIONS VACANT

BRIAN PEAKE requires assistant capable of and wishing to run small contracts. Tel.: GRO 7888. [6146]

CONCRETE ENGINEER required to promote sales of patented expansion joints (already well introduced to the market). Contacts with consultants, architects and contractors desirable. Remuneration by salary, car expenses and bonus on expanded sales. Apply Box 7162, giving full details of experience, etc. [6106]

CLERK OF WORKS required to superintend the erection of new buildings for St. Luke's College in Exeter, work on which is expected to begin in April, 1960, and be completed about August, 1961. Candidates must be experienced Clerks of Works with a good knowledge of all building trades including reinforced concrete work. A good salary will be offered to a man with the right qualities and good experience. Applications giving full details of past experience, age and salary should be sent to the Architects appointed by the College, Louis de Soissons, Peacock, Hodges, Robertson & Fraser, 12 Baring Crescent, Exeter, not later than February 29, 1960. [6165]

WORK WANTED

BUILDER and Decorator, A. G. Davenport, 274 Downham Way, Downham, Kent, LE1 Green 8796. Keenest prices for all types of interior and exterior decorating. Try us! [6006]

EXCAVATION sub-contractors, site development, overburden removal, clay gutting, earth dam construction, etc. Technical staff available to analyse, programme and price complex projects. Particular attention given to finish and compaction. D.9, D.8, TD.18 and TD.14 scrapers, excavators, loading shovels and lorries available with competent and imaginative supervision for execution of work. Also interested in overseas projects calling for not exceeding £5,000 per week output. Dick Hampton, Blacknest, Alton, Hants, Tel.: Bentley 2241. [6034]

G. BARTER & CO., Industrial Decorative Spray and Brush Painters (labour only on contract). We supply equipment, 1a Whitton Way, Hounslow, Middlesex. HOUNslow 9615. SOUTHall 3815. [6083]

SCULPTURE FOR ARCHITECTURE: Stone, wood, bronze and aluminium. Also letter-cutting. M. Frere-Smith, A.R.C.A., Stalham, Norfolk. [6153]

BUSINESS & PROPERTY

SPACE to let to Architect in industrial designer's Mayfair office consisting of one room 14 or sharing large light room £2 10s. Brunn Associates, 13a Old Burlington Street, W.1. REG 5425. [6132]

MISCELLANEOUS

ARCHITECTS, surveyors, demolishers, etc., we are buyers of redundant and surplus refrigeration equipment, all kinds. We dismantle and collect. Best prices given. Write Box 5516. [6023]

REFRIGERATED SHELVES for bottle cooling; beer and wine coolers, etc., for hotel, catering and licensed trades, supplied and installed. G.V.E. Ltd., 231 Strand, W.C.2. FLE 5947. [60813]

COMPETITIONS

BURGH OF DUMBARTON ARCHITECTURAL COMPETITION:

CENTRAL AREA REDEVELOPMENT
THE Town Council of the Royal Burgh of Dumbarton invite architects resident in the United Kingdom to submit designs for an area of 40 acres for redevelopment primarily for commercial use, in the centre of the Burgh.

Assessor: Professor R. H. Matthew, C.B.E., M.A., F.R.I.B.A.

Premiums: £1,200, £900, £500.
Last day for submitting designs: May 30, 1960.
Conditions may be obtained from the Town Clerk, Municipal Buildings, Dumbarton, on payment of a deposit of £2. [6131]

Neath Borough Council and Neath Rural District Council PROPOSED NEW CIVIC BUILDINGS ARCHITECTURAL COMPETITION

THE Neath Borough Council and the Neath Rural District Council invite Architects registered under the Architects (Registration) Acts, 1931 and 1938, to submit designs in competition for new Civic Buildings, comprising Offices, Council Chamber and Public Hall, to be erected at Fairfield, Neath.

The Promoters have appointed Sir Percy Thomas, P.P.R.I.B.A., M.T.P.I., of Cardiff, to adjudicate on the designs and to make the award.

Premiums
First prize £1,000 (to be merged with fee)
Second prize £500
Third prize £300

Conditions of competition and plan of site may be obtained on application, accompanied by a deposit of £2 2s, to either of the undersigned, not later than 12 noon on Saturday, March 12, 1960. Deposits returnable upon receipt of a bona fide design, or if conditions are returned within one month before the date for submission of designs.

Dated this 10th day of February, 1960.
D. King Davies, I. H. K. Thorne,
Town Clerk, Clerk of the Council,
Town Hall, Orchard Chambers,
Neath. [6149]

BRITISH RAILWAYS

LONDON MIDLAND REGION

ASSISTANT ARCHITECTS REQUIRED

APPLICATIONS ARE INVITED FOR VACANCIES IN THE OFFICE OF THE REGIONAL ARCHITECT AT EUSTON STATION, LONDON

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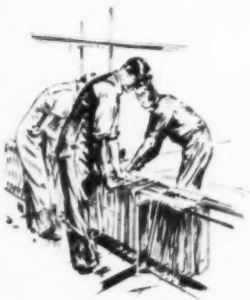
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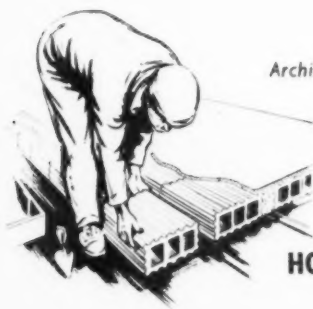
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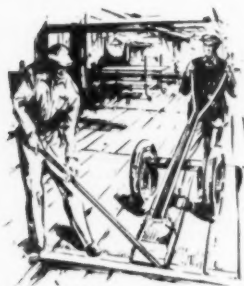
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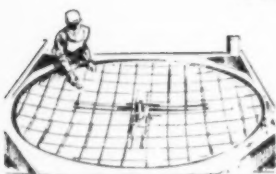
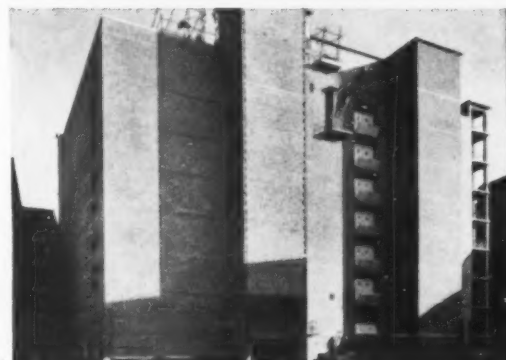
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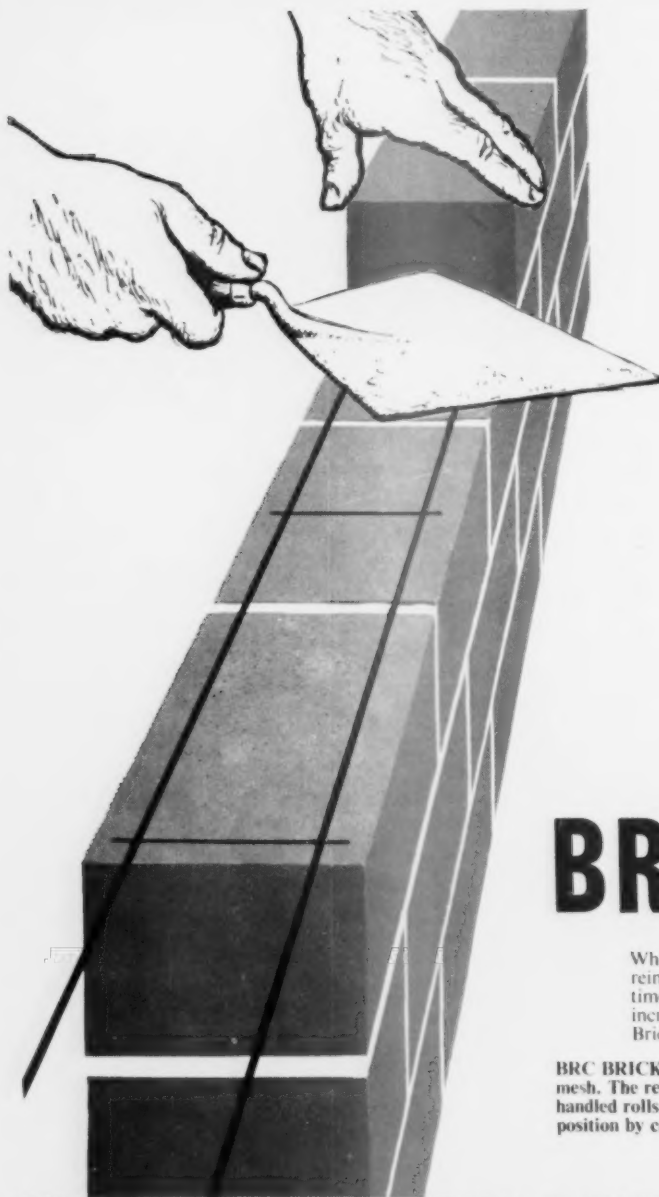
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